In 1968, Cornell professor T. Colin Campbell was in the Philippines looking for a way to provide better nutrition for poor families. He was focused on peanuts—as an inexpensive source of protein. At that time, incidentally, children were getting cancer at an alarming rate—and a physician mentioned to Campbell that it was actually the children of the wealthiest families—presumably better nourished—that were getting the most cancer.

Then Campbell noticed the work of two researchers in India. They attempted to verify experimentally what people expected to be true. They thought that people that were better nourished would be better able to resist the onset of cancer. So they conducted an experiment by first giving rats a substance that might cause cancer—a carcinogen. Then they fed some rats 20% of their calories in protein (animal source—casein, from milk) and another set of rats 5% of their calories in protein. They expected the rats fed 20% protein to get cancer at a lower rate. But it was the rats fed only 5% protein that did not get cancer.

This result bothered Campbell so much that he repeated the experiment in his own lab. The result held. As Campbell puts it, the results were exactly the opposite of what was expected.

But, in fact, not exactly the opposite. What was originally expected was that the rats on 20% protein would do measurably better—perhaps even 20% or 30% better than the rats on 5% protein. That's about as big a margin of improvement as could be expected. The opposite of this expectation would be the situation where the rats on 5% protein did 20% or 30% better. But this was not the case. The rats on 5% protein did 100% better.

All of the rats on 20% protein got cancer. *None* of the rats on 5% protein got cancer. This profound, complete difference suggests that our own diets—the standard way Americans eat—may be on a completely wrong track, and have profound health consequences. After all, studies determining cancer susceptibility in humans are done with rats.

Other experiments, varying the amount of protein given, show that protein amounts from 5% up to 10% do not contribute to cancer. But from 10% to 20%, the more protein the more cancer. Amounts over 10% are amounts *well over* the body's actual need for protein. And, amounts of 20% are *well within* the range normally consumed by Americans—and within the range considered optimal by the medical establishment's guidelines.

Campbell repeated his experiments using various proteins. He found another striking result. Rats consuming proteins from vegetable sources did not get cancer, even if the protein was given at the 20% level.

It is a tragic irony that people make a special effort to get plenty of protein in their diet. And for them, protein means protein from animal sources.

Campbell's experimental results are consistent with epidemiological (human population) data. For example, in 1958 there were 18 deaths confirmed due to prostate cancer in the nation of Japan. In the same year in the USA (with twice the

population of Japan) there were not just 36 such deaths. There were 14,000. The difference is not due to genetics. When Japanese immigrate to the USA, they start to get cancer at the rate we do. The difference is due to diet—just like it is for experimental rats.

Being on a whole-food, plant-based diet is believed by Prof. Campbell to be overwhelmingly the most effective way to prevent cancer. I just received an email from nutritionstudies.org linking to an article by Dr. John Kelly about his work with cancer patients. I was arrested by Dr. Kelly's article, because it addressed stopping the progression of existing cancer and not just its prevention. (My comments are in square brackets [ ] .)Here's Dr. Kelly:

> My expertise, if one could call it that, derives from the clinical experience I have had in treating cancer patients and discovering for myself the extraordinary relationship that exists between animal protein and cancer. My aim therefore is to present examples of [1] what can happen when we ignore the necessity for a whole food, plant-based (WFPB) diet and [2] the benefits that are there for the taking, when patients adopt an animal protein free diet.
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> Ten years ago I would have scarcely entertained the possibility that a diet of any description could have an important role to play in the cure for cancer. At that time I had been practicing medicine as a family doctor, a general practitioner in Dublin, Ireland for more than forty years. Like most of my medical colleagues I would have been hugely skeptical of all the various dietary cures that were on offer, all based on little more that anecdotal evidence.
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> Then one day all that changed. A close friend of mine had died from cancer. At his funeral I happened to meet up with the only true icon of Irish science that I had ever known. We had come to be acquainted in our university days and even then he was considered to be one of the brightest students on the campus. In fact, he had gone on to become a professor of genetics.
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> At the funeral I brought up the subject of our friend's death. I asked him whether there were any worthwhile cancer cures coming through in the field of genetics. His response was rather surprising. A wry smile came to his face and he took a business card from his pocket. On the back he wrote the name of a book and the name of the author, T. Colin Campbell. Then he said, "If you want to know more about cancer read *The China Study*." Disconcertingly, we didn't speak on the subject after that.
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> To be exposed to the work of T. Colin Campbell, PhD is a big day in anybody's life, but when a medical doctor reads *The China Study* he can react only in a very limited way. Most doctors will immediately realize that the contents of the book are not exactly orthodox teaching and many of them will discard the book after the first few pages. Famously, this was the reaction of a doctor friend of mine that I gave the book to as a present. He threw it away. But I am glad to say he picked it up again some years later. My own reaction was to read the book over and over again until I became absolutely convinced that there was a great deal of

truth in what Colin Campbell was saying.

What is most striking about *The China Study* is the amount of solid evidence it presents. The book contains detailed accounts of Professor Campbell's experiments on laboratory rats where he showed how it was entirely possible to switch the growth of cancer on and off by simply varying the amount of animal protein that there was in the diet. This represented an enormous discovery and the fact that the results could be replicated made the conclusions scientifically irrefutable.

The message that I got from the book certainly pricked my conscience. From the very first reading I came away with the conviction that it should be possible to apply the findings to my own cancer patients. It seemed reasonable to presume that what had happened in rats might very well also happen in humans, and without any danger to patients. I talked about the possibilities with colleagues but not unexpectedly everybody felt that it would be best to leave the matter in the hands of cancer specialists. It was when I received absolutely no encouragement from this quarter that I decided to conduct a simple trial of my own.

From that moment on I spoke about the diet to every cancer patient that walked through my office door. Some of them had been sick for many years and their cancers were very advanced, whilst others were just newly diagnosed. In total, almost seventy patients took part in my trial. I suggested to all of them that they should get a copy of *The China Study* and that they would have to stay on an animal protein free diet indefinitely. What happened far exceeded anything that I could have hoped for. Almost all of the patients began to feel considerably better within just a few weeks. It was as if their cancers had actually stopped growing.

Astonishingly, my simple experiment appeared to be working. In my book *Stop Feeding Your Cancer* I describe some of the more dramatic cases that I have seen over the past ten years. One could say that all of them behaved in the manner Colin Campbell might have predicted. Those patients that committed faithfully to the diet remained in good health whilst those that were not compliant responded very much like the rats in his experiments. When there was animal protein in the diet their cancers flared up, only to come back under control again as soon as a WFPB diet was resumed.

[Dr. Kelly then goes on to speculate on how soon it will be before the medical establishment generally recognizes the relationship between diet and cancer. I should emphasize that Dr. Kelly did not substitute diet therapy for standard therapy. All the patients followed the standard therapy advised by their oncologists. Dietary changes were in addition to standard therapy.]

I am a retired research mathematician. One of my own projects—finding logically consistent symbolizations of immunogenetic data—was funded from 1976 to 1991 by the National Cancer Institute of NIH. In 1991, I did not seek further renewal of this grant because I had become really disappointed with the biomedical research

community—just as Dr. Kelly was disappointed with his colleagues' lack of interest in the clinical implications of Colin Campbell's work.

My involvement with the research community did, however, bring me into close interaction with scientists, some whose work should and some whose work should not be trusted—and also gave me insight into seeing which was which.

My interest in the scientific basis for diet choices began about 1980, and has continued. I never contributed professionally to this area, but read, and appreciated, the work of those who I thought were doing good, and important, science. One of these is Colin Campbell. Another is Caldwell Esselstyn (rhymes with "win").

Dr. Esselstyn (MD) wondered what the effect would be of putting cardiac patients on the kind of diet that people ate in the few places in the world where heart attacks are unknown. The cardiology department of his institution (the Cleveland Clinic) referred patients to him—a group of patients crippled with heart disease—in order to do a study. For many of these patients, the cardiologists could do nothing more, except to predict their death in the not-too-distant future.

In the eight years prior to Dr. Esselstyn's study, this group of 18 patients had had a total of 49 cardiac events: heart attacks, bypass operations, angina (pain), and so forth. He put them on an early version of a low-fat, whole-foods, plant-based diet.

Since putting them on the diet, over twenty years ago now, the group has had just a single cardiac event—and (just as if to prove the point) that was for the one patient that had strayed from the diet (and who therefore returned). Fully compliant patients fully recovered, and the recovery started immediately—no more heart attacks, bypass operations, and so on. 100% recovery.

Dr. Esselstyn's results also showed that the cause of heart attacks—coronary artery disease (CAD)—was always halted and in some cases completely reversed by the diet. (The story, with angiogram pictures, can be found in his book *Prevent and Reverse Heart Disease*.) On the other hand, some "Heart Letters" sent out by prestigious medical schools still to this day assert that the progression of CAD can not be halted, but only slowed down.

Of course, from one viewpoint, this diet is starting to look like a panacea. And doctors are justifiably leery of panaceas. But it is solely a question of view point. If the rich American diet is "normal", then cancer and CAD are distinct diseases. And their cures or preventive measures would be expected to be distinct. Since the low-fat, whole-foods, plant-based diet seems like a panacea, working to cure or prevent not only cancer and CAD but a long list of other diseases and maladies including diabetes, it is merely testimony that our rich American diet is not normal. It is in fact the underlying cause of these several manifestations of being on a diet that is not what we're designed to be on.

The whole-food, plant-based diet is what we're designed to handle. We've ben told that we're omnivores, but in the animal world omnivores are really carnivores that have adapted to eating plants. A bear's teeth look like your dog's teeth, not like your teeth. Our grinding molars, our jaw that is flexible from side to side, the length of our

digestive tract, the way we utilize nutrients – all characterize us as herbivores, not carnivores – or omnivores.

It all fits together with the irrefutable scientific evidence (epidemiological, clinical, and experimental laboratory evidence) from doctors Campbell and Esselstyn. We're designed to eat a whole-food, plant-based diet.

The view, which endures within the medical establishment, that CAD cannot be reversed or halted but only slowed down may indeed be true for people that remain on the rich American diet. But it is not true for people on a low-fat, whole-food, plant-based diet.

The following story was downloaded by me from an email from DrMcDougall.com. (My comments are in square brackets [ ] .)

> My name is Lyndall Shick. I'm a 65-year-old retired counselor, grandmother of six and avid horse enthusiast living in rural Oregon. I'd like to tell you my story in the hope that it might provide you with inspiration, as so many of the Star Stories [at DrMcDougall.com] have provided for me.
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> By the time I was eleven, I had lost seven close relatives, including all of my grandparents and my father who died of his third stroke at age 41. All but one died of heart disease. Needless to say, this left a huge impression on me. Death seemed to be the underlying theme of my young life.
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> When I was 41, the same age my father had been when he died, I had my first heart attack. The doctors couldn't believe it. I was at a very low weight (at that particular time), didn't smoke, wasn't diabetic, was pre-menopausal, and exercised vigorously and regularly (at that particular time). I looked really fit. Family history was my only risk factor, and what was I going to do about that?
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> After a very expensive life-flight trip to the nearest large hospital, I had an angiogram followed by an angioplasty, was handed a load of prescriptions, the American Heart Association diet, and sent on my way. I really tried to follow the diet, but it was ambiguous. Nevertheless, I'd try to follow it for a few months, forget my resolve, and slide back into my old habits. This was taking a toll and by now I was clinically depressed. I was also up to 12 prescription drugs and trying every supplement thought to benefit hearts and moods. Thus began a long series of health incidents.
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> Between 1992 and 2004 I had nine surgeries or procedures. I was falling apart! Those related to cardiovascular disease included an endarterectomy to scrape plaque out of a carotid artery after a TIA (stroke precursor); another angiogram, angioplasty and implantation of stents; a second heart attack (at 210 lbs.) while in ICU following a horseback riding accident; then another angiogram with more stents put in. I remember one cardiologist telling me something I've always remembered: "Lyndall, we now know WHAT will kill you, we just don't

know WHEN. That's up to you." I was shocked. I went home, lost 40 pounds and started an exercise program. For a few years.

No one had told me that stents are good for about ten years. Mine worked for a bit longer than that, but in 2013 I began having angina, which radiated up into my jaw while doing water aerobics, a routine I'd done easily literally hundreds of times. My weight was around 155, I was eating better, lifted weights, walked, and rode my horse in addition to water aerobics. The jaw pain would go away if I slowed down, so that's how I managed it.

About eight months later I had a crisis in the pool. I could no longer stop the angina by slowing down, or even resting. That day, something new was happening. I was nauseated, weak, and sweating. After a trip to the ER and a night in the hospital for observation, I was referred to the cardiologist once again to see what had changed. He explained that my angina had progressed from stable to unstable, meaning you neither know what brings it on nor how to stop it. An angiogram showed that two coronary arteries were in very bad shape. I didn't need medical training to see that these vessels, which looked like raggedy little twisted strings, were gravely damaged. [I believe she was looking at the shadow of the opaque dye inside her arteries. The fact that these sections looked like “little twisted strings” means that the arteries were so clogged that all that was left for the passage for blood was no more than a thin string.] Looking at the monitor with the doctor, I was flooded with compassion and gratitude for my arteries. I had pushed them to the limit, but they kept on serving me. I was admitted to the hospital and told I would be having coronary by-pass surgery. Scared, uninformed, and incredulous, I did as I was told. I was in trouble. Doctors know best.

The surgeon spoke with me for about ten minutes the day before the surgery. He didn't tell me that 60% of the people having this operation need another one within six to ten years. He didn't tell me he would stop my heart in order to sew on it. He didn't tell me that a pump would circulate blood through my body for four hours, or that 50% of patients on this pump lose 22% of their cognitive function and that the loss is permanent. He didn't tell me the [mortality] rate was more like 3%, not 1%. He didn't tell me that some patients have strokes during the surgery. I learned all of this only afterwards while desperately searching for help.

Why was I desperate? Because the first day after surgery, when an aide began walking me around the unit, my jaw suddenly ached! It felt just like it had two weeks and $125,000 ago! I was devastated. This was NOT supposed to be happening!

I went from incredulous to incensed. Words won't describe the seething anger I felt. I didn't know what I was going to do, but it wasn't going to be more of the same! I have had heart disease for decades, and nothing that traditional medicine offered has stopped its progression. Although I think they meant to

help me, and their skills are truly amazing, I knew I was not going back to the cardiologists.

So, in desperation, I went to the local health food store in search of something, anything, that might give me an idea of what to do. If I didn't trust the doctors, what then? The book shelves were full of all sorts of books, including one entitled "How to Prevent and Reverse Heart Disease." I passed that one up, thinking "that guy's some kind of quack just trying to sell books, everyone knows heart disease can't be reversed!" Instead I got a copy of "Forks Over Knives". At least it would have some good low-fat recipes, right? When I got home, I was shocked to see that the fork on the book's cover was a fork, but the knife was a scalpel. I raced through that book!

Next, I got the documentary film "Forks Over Knives". Holy cow! (Or should I say Holy carrot!?) Here were doctors telling me there IS something that I, myself, can do to take charge of my disease and even cure myself. I began reading everything I could find by Drs. McDougall, Esselstyn, and Campbell as well as the others featured in the film. I purged my kitchen, stocked it with new food, and started, all at once, eating only whole grains, legumes, vegetables and fruits. NO OIL, not even avocados and nuts. I think my friends thought I was crazy and probably in the grip of yet another fad diet. Or maybe I was militantly vegan and would soon burn my saddle and throw out my goat's milk soap!

I asked my adult children and their kids to come watch FOK with me. Halfway through the film they offered to go whole-foods, plant-based to support me and to enhance their own health. What a gift! I wouldn't have to do it alone.

Since September 1, 2013, I've been 99.9% compliant with the diet. Almost everything the diet promises has already happened in 14 months. I eat all I want, and surprise people by the sheer volume of food I consume! I'm no longer afraid of carbs, and home, not restaurants, is the best place to eat. I've thrown away all supplements, and reduced medications. My weight has come down to 120 lbs., without dieting, and my total cholesterol is 123mg/dl (down from an all-time high of 345mg/dl) the lowest it's ever been in my life. Blood pressure is a non-issue. Sleep apnea has disappeared. Depression is much improved. I have more energy and sleep better. The afternoon slump is gone. I no longer keep magazines next to the toilet because, although I'm there frequently, I'm never there long enough to read! I have all new, little clothes. It's sooooo much easier to get on and off my horse, and she's sooooo grateful that I've taken such a load off her back! Although I still have some angina when my heart rate elevates, it has greatly improved. I look forward to the day when I can hike briskly for an hour, up a mountain trail, pain free. That's my goal.

In order to strengthen my resolve and hang tight to all these wonderful gains, I knew I needed to stay focused on this new life, free myself of the pleasure trap (thanks Dr. Lisle), break the food addiction (thanks Dr. Barnard), keep cooking and eating carbs (thanks Dr. McDougall), and remember that moderation kills (thanks, Dr. Esselstyn.) So, I read Dr. McDougall's newsletter every month, watch

> McDougall Moments twice a week, and read every book I can get my hands on. I found some other ways to stay focused, too.
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> Last December I traveled to Santa Rosa for a weekend seminar with the McDougalls. In May I flew to Cleveland and became Dr. Esselstyn's patient. In October I began Dr. Campbell's Certificate in Plant-Based Nutrition course on-line through eCornell. I don't know yet what I'll do with the certificate, but I hope to be able to help educate people in need of and interested in dietary changes. Whatever I do, I'll have more credibility than some ticked off old lady who bought a couple of books at the health food store!
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> Thank you from the bottom of my heart, you leaders of this movement, whom I affectionately refer to as the "plant whisperers", for pioneering a gentler way of taming disease. Because of your work I plan to dance at my grandchildren's weddings.

In a postscript Ms. Shick states, “Since I wrote the above story some exciting things have happened in my new life. I received my Certificate in Plant-Based Nutrition in December; I lost three more pounds without trying, and am now at the weight I was in at age 16 when I was the runner up in a beauty pageant; … my angina is almost completely gone, and I trust that in three more months I will be pain free at my desired exercise goal! … “

There are three cancer therapies accepted by the US medical establishment: surgery, radiation, and chemotherapy. In general, accepted therapies are formally fixed into a “standard of care”, and physicians are noticed, and possibly at risk, if they deviate from this standard of care.

Although diet is increasingly being recognized as important in cancer treatment, there remains a lagging gap between irrefutable scientific evidence (epidemiological, clinical, and experimental laboratory evidence) and the “standard of care”.

In his 2014 book *The Campbell Plan* (reissued in paperback in 2016 as *The China Study Solution*), Thomas Campbell, MD, (the son of Colin Campbell) calls this gap a “chasm”. He relates a hospital episode with a woman dying from diabetes. Her legs have both been amputated below the knee, but she has nonetheless some fighting spirit. She asked the attending physician (not Campbell), “What should I be eating, doctor?” The doctor told her to “watch out for sugars, to avoid bagels, to use low-fat dairy products, that fat-free milk and reduced-fat cream cheese were in fact very tasty once you got used to them.”

Dr. Campbell comments, “Through all of this [her past encounters with doctors, as her disease progressed] she still was unclear about the dietary advice that could save her life, her legs, her eyes, her kidneys. She had been in the medical system for years and yet her preventable, perhaps even curable, disease had progressed.”

Dr. Campbell states, “There is a chasm between powerful nutrition and lifestyle information and the medical system’s standards of care. Evidence-based nutrition is simply absent from the vast majority of our medical system.”

There is a lot of contradictory stuff on diet out there — much of it written by people with little or no education in nutrition. On the other hand, Prof. Colin Campbell has spent his scientific career studying the relation between nutrition and disease. His book *WHOLE Rethinking the Science of Nutrition* identifies the source of much of the wrong message the public is getting about nutrition. In this book, Prof. Campbell also states, "If you want to live free of cancer, heart disease, and diabetes for your entire life, that power is in your hands (and your knife and fork)."