

Dr. Dehua Zheng, Cancer Care in China April 19, 2009 Welcome to Yale Cancer Center Answers with Drs. Ed Chu and Francine Foss, I am Bruce Barber. Dr. Chu is Deputy Director and Chief of Medical Oncology at Yale Cancer Center and he is an internationally recognized expert on colorectal cancer. Dr. Foss is a Professor of Medical Oncology and Dermatology and she is an expert in the treatment of lymphomas. If you would like to join the discussion, you can contact the doctors directly at canceranswers@yale.edu and the phone number is 1888-234-4YCC. This evening we welcome Dr. Dehua Zheng. Dr. Zheng is a surgical oncologist from China and a visiting fellow at Yale Cancer Center. Chu Dehua, welcome to the show and thank you for being with us this evening. Let's start off by having you tell us a little bit about your background. Zheng Thank you. I grew up in Fuzhou City in southern east China and finished medical school at the First Military Medical University in Guangzhou City in south of China. At the university there is a good school of traditional Chinese medicine. Although my major was modern medicine, I also learned something of principal philosophy and treatment techniques with traditional Chinese medicine. After graduation, I did my surgical training and got my PhD at the Chinese PLA General Hospital in Beijing. I then became an attending surgeon in the transplant center of the same hospital. Foss Dehua, could you tell us what brought you halfway around the world to visit us here at Yale Cancer Center? Zhen This is a good question. I am very interested in immune regulation for transplant patients. As you know, immunoregulation is an optimal way for us to treat allograft rejection and graft-versus-host disease. Over the last three years I have read papers about photopheresis, immunotherapy, devised by Dr. Edelson's research team at Yale. Quite remarkably, photopheresis proved to be effective in both turning on the immune reaction against at least one cancer, CTCL, and turning off undesirable autoimmune reaction without significant side effects in autoimmune disorders and rejection of a transplant organ. But up until now, the exact scientific mechanism of photopheresis has not been fully understood. So, I visited here to establish cooperation with Dr. Edelson and Dr. Foss for further study. Maybe we can use some theory of a traditional Chinese medicine to explain the clinical efficacy of photopheresis. Foss And photopheresis, as you know, involves methoxypsoralen which comes from a lime, which is a natural substance, and so in some ways there are a lot of connections between the photopheresis process and some of the traditional medicine that you are probably familiar with. 3:49 into mp3 file http://www.yalecancercenter.org/podcast/Answers_Apr-19-09.mp3 Chu Maybe just to let our listeners know and perhaps appreciate a little bit better, Dr. Foss, who is my co-host for the show, was one of the pioneers in trying to develop photopheresis as an approach strategy to reduce the incidence of graft-versus-host disease, which unfortunately, is common in patients who undergo stem cell transplantation. Foss That is right. It is very exciting for us having taken photopheresis from cutaneous T-cell lymphoma, which is essentially a cancer, a lymphoma, into the arena of graft rejection, graft-versus-host disease, for bone marrow transplant. It is particularly exciting for me to have Dehua here representing the whole field of transplant and solid organ transplantation,

in China and around the world, now looking at applying photopheresis as a process to prevent organ rejection. This has been a very exciting collaboration for us. Chu That is great. In fact Dehua, I was going to ask you, back in China you said you were focused on transplantation, can you tell us what specifically you were involved with; transplantation for hematologic malignancies, leukemia, lymphoma, or the transplantation of solid tumors? Tell us a little bit more about that. Zhen Our hospital is the biggest hospital in Beijing and our transplant program is the biggest one in the army/military service. Our transplant center is also a comprehensive transplant center. We perform kidney transplantation, liver transplantation, heart transplantation, and bone marrow transplantation for hematologic malignancies. A very serious problem for transplantation is rejection and GVHD. We are very happy to have the opportunity to establish collaboration with Yale Cancer Center and Yale Dermatology to develop a new immunoregulation therapy. Foss Dehua, a lot of our listeners are probably not familiar with how medicine is practiced in China. You have had the opportunity while you are here to make rounds with me and to see how the cancer center works and how we approach the clinical care of cancer patients here in the United States. I wonder if you could let our audience know how you would compare that to the way things are done in China? Zhen Modern western medicine here is very different from the Chinese traditional one. I would say that western medicine is a quantitative constructive science, whereas traditional Chinese medicine is an organismic quantitative schema, better described in the videos as a resilient, dynamic ecosystem. The focus of medical science is upon the pathologic entity here, and Chinese traditional medicine draws upon a natural, centered cosmology that emphasizes the relationship between the seed and the soil. What is it about the terrain that permits a cancer or any disease to take root? Our ancestors believed that the human body is a small universe, 8:16 into mp3 file http://www.yalecancercenter.org/podcast/Answers_Apr-19-09.mp3 that is connected with the big universe around us by some special energy channels. Chu I get the sense that you are feeling that here in the United States and in the western countries, we focus so much on laboratory results, what the x-rays show, and we look at the number, so to speak, whereas perhaps in China and the more traditional Chinese eastern approach, you look at the patient and look at the whole body as it is and maybe don't focus so much on the numbers, is that accurate you think? Zhen In China we also use modern medicine, but at the same time we use traditional Chinese thinking. When we use traditional Chinese thinking, we pay attention to the patient's overall feelings and their symptoms because sometimes people have bad feelings or symptoms, but if you use machines, images, or laboratory tests, you find nothing. Chu I know a lot of people in Taiwan and in China, where I have visited quite frequently, talk about a patient being 'hot' or patient being 'cold' and the Chinese physician can tell sometimes just based on feeling the pulse, looking at the tongue, or just feeling the temperature of the skin. What has your experience been in that regard? Zhen Usually we look at the tongue's color and also we feel the pulse, because we have Yin and Yang theory and Yin

and Yang cannot live without each other. Chu So there needs to be a balance within a system, within an individual's body. Zhen This is not a simple balance, just like a harmonious balance, Yin and Yang can mix together and then become vital energy that in Chinese means "chi." This vital energy can flow through the way of the meridian system. This is the system which connects our small universe to the outside universe. Foss When you see a patient with cancer, you are thinking about that patient on a number of different levels. You are obviously thinking about the disease itself, what you can measure on the x-rays, and what the pathology tells you about the cancer cells, but you are also looking at the patient from a different perspective as you just mentioned, with respect to the whole person and sensing perhaps differences in energy and disruptions in these meridians that you are describing. When you treat a patient with cancer then, are you using multiple modalities for treatment or are you sticking pretty much to the way we approach the patient, which is chemotherapy and supportive care? Zhen We combine the western medicine as you mentioned as a standard treatment, then we 12:22 into mp3 file http://www.yalecancercenter.org/podcast/Answers_Apr-19-09.mp3 combine these standard treatments with our alternative treatment, like acupuncture, to relieve the pain after surgery and to help the patient recover from chemotherapy and radiation. Foss Is it common in China that all physicians treating cancer patients would utilize all of these different modalities of treatment? Zhen Nearly 70% do with the patients with cancer. When they are performing surgery, radiation, and chemotherapy, they will simultaneously have some traditional Chinese medicine like herbals, acupuncture, or meditation or something. Chu Dehua, I am curious, you are obviously a surgeon trained in modern western style medicine, but in your own clinical practice do you prescribe what we call complementary alternative approaches? Zhen Yes, sometimes. When I find the patient's pain is very severe, and if they are using pain medication they will have some more side effects, and some pain medication can suppress the breathing, so at this time we use acupuncture or acupressure. Sometimes we inject some drugs, very little drugs, into an acupuncture spot. If you inject drugs into these special spots you can enhance the efficiency of the drug. Foss We are going to return in a few minutes to talk a little bit more about traditional Chinese medicine. You are listening to Yale Cancer Center Answers and we are here discussing cancer care in China with Dr. Dehua Zheng. Foss Welcome back to Yale Cancer Center Answers, this is Dr. Francine Foss and I am joined by my co-host Dr. Ed Chu and Dr. Dehua Zheng, a visiting fellow from China. We talked a little 15:57 into mp3 file http://www.yalecancercenter.org/podcast/Answers_Apr-19-09.mp3 bit about Chinese medicine and how it is very different from traditional western medicine. Dehua, can you go through more about the differences in your mind between what you have seen here, your experiences at Yale Cancer Center, and how you practice medicine in China? Zhen At Yale Cancer Center I find all of you only use modern medicine for patients. Very few physicians know about Chinese medicine. So, when the patient has some problems with chronic pain, or when they have sub-health problems, you have no drugs to alleviate them. At

this time, the objective of Chinese traditional medicine is to help the people live healthier lives and help people recover from their damaging therapies. I think if we can combine these two, you will get a more powerful therapeutic effect for the patient.

Chu One thing that I found very fascinating when I had a chance to visit the Chinese traditional herbalists in China, Taiwan, Hong Kong, and throughout Asia, is that the doctor's offices are embedded within the food markets. I should say, they are next to the fruits and vegetables, the fish market, the meat market, and it is amazing to me that individuals will go everyday, they will get their fruits, veggies, meat and fish, and then at some point they will then go to the herbalist's office to get their tea, or an extract of various herbs, and take that to help with whatever medical condition they might have. What has been your experience been?

Zhen I would like to say that in Chinese traditional medicine, food and drug are connected very closely. Sometimes food is a drug, and drug is food; there is no isolation from each other. Our Chinese traditional medicine is more than herbal and acupuncture, we also have dietary therapy.

Foss Ed and I have both been at the National Cancer Institute, where for a large number of years now there has been a natural products division that has screened a lot of different foods and natural substances and identified not only new cancer drugs, but also antioxidants and other things that are beneficial for health.

Chu What is interesting is that there are warehouses full of extracts from all around the world, it is really quite remarkable, but I guess the typical approach that I know the NCI has taken and here in the United States and other western countries, is to try to take these barks and trees and whatever extracts and try to isolate the most active ingredient. Whereas my sense is that in traditional Chinese herbal medicine, it is not just a single active agent but all of the different agents in a particular herbal extract working together, a kind of complete balance of that extract.

Zhen Yes. If you would like to understand why Chinese herbal medicine has so many compounds, this is our ancient tradition of Confucism. In Confucism theory, they said that in a country

21:03 into mp3 file http://www.yalecancercenter.org/podcast/Answers_Apr-19-09.mp3 we should have a king, a minister, and some messengers or other officials that work together. Then, under the rule of the king, this country will be in harmony. This country, just like a human body, if you use a drug, it is just like a hierarchy of the society. Some compounds are king compounds, some compounds are ministers, some compounds are messengers, and everyone is important. Without the messenger the king cannot deliver the message to the minister. So, if you only take one compound, maybe this compound will lose the efficacy for the disease treatment.

Foss To what degree are these compounds and these mixtures standardized in China? If you go from one herbalist to another and get essentially the same mixture, will it really be the same composition?

Zhen Maybe, it depends on the herbalist's experience or their fluency of preparing these drugs. Also, in China, herbals are not the same; when it is spring, when it is autumn, and in winter, the same herbal does not have the same function. Just like the human body we are an ecosystem. If the outer environment is changing, the inner ecosystem is changing, and so you should use

your diagnosis of symptoms and disease individualized to this patient to make the preparation of the drug that is a mixture of compounds that is right for the patient. Chu Dehua, Chinese traditional herbal medicine has been practiced for up to 3000 years, going back to historical times, just in your lifetime, as a practicing physician, have you seen much in the way of changes to the overall approach to the use of traditional Chinese medicine? Zhen Yes. Nowadays in China traditional Chinese herbalists also learn western medicine and Chinese people do not see western medicine and eastern medicine as controversial things, they see them as united together. Western medicine also has some impact on traditional Chinese medicine, just as you said, sometimes we can add compounds into some traditional mixtures to make the treatment efficacy more than before. Foss Ed, you have been working with Dr. Chang at Yale to develop herbal medicines in the treatment of cancer and the side effects associated with cancer. Can you tell us a little bit about that? Chu I am glad you asked that Francine because it really has been a fascinating story. About 5 or 6 years ago, as you know, our good friend and colleague Professor Chang in pharmacology who has had a longstanding interest in Chinese herbal medicine, identified a very interesting herbal made up of four main herbs. Within those main herbs we have now been able to identify up to 64/65 individual components and this herb has been used in everyday practice in China, Taiwan, and around the orient for the treatment of diarrhea, nausea, vomiting, and26:16 into mp3 file http://www.yalecancercenter.org/podcast/Answers_Apr-19-09.mp3 fatigue, so we have actually been studying it in combination with western chemotherapy in the hopes of trying to reduce side effects. Many side effects, in particular for drugs that are used for colorectal cancer, pancreatic cancer, and liver cancer, are in fact diarrhea, belly cramps, nausea, vomiting, weight loss, and fatigue and already in some of the studies that we have done here at Yale Cancer Center and also at the VA Hospital, we found that this herb, which is called PHY906, can indeed reduce the GI side effects. Right now our good friend and colleague Dr. Wasif Saif is the Principal Investigator, and myself and Dr. Leichter are also part of that study, as well as Dr. Chang, looking at this herb in combination with a drug called irinotecan for patients who have metastatic colorectal cancer. It is still early, called the phase I part, but we are planning a larger phase II study. So far it looks like this herb helps patients tolerate the chemotherapy drug much better. Foss That is a really interesting story Ed, and it reminds me of one of my patients that I saw back when I was in Boston a number of years ago who was an elderly Chinese gentleman who had end-stage metastatic pancreatic cancer. We really could not offer him anything more, but his family took him home and he was on an herbal therapy and I actually saw him a year later and the gentleman's cancer had stabilized or stopped growing and he was feeling very well. He was in his 80s and he really looked very well and very fit. So of course, we physicians were all wondering what was in that herbal preparation, but I think the story just goes to show you that there really are a lot of things that we physicians do not know, and perhaps physicians in China, now going back about 2000 years, have been using this kind of medicine. Dehua, can you offer any suggestions or insight for our listeners in

terms of if patients here wanted to think about alternative therapies or herbal medicines, how they might go about doing that?Zhen If they can visit China to find the very experienced herbalist or traditional Chinese practitioner that will be perfect. Because here in the United States some practitioners only use the preparation of the drugs, but they do not differentiate the symptoms, the disease, and they cannot grasp this ability. If they cannot grasp this ability, it will be dangerous for them to give the preparation of a Chinese traditional herbal.Chu On that note, we unfortunately have to end the program this evening. You have been listening to Yale Cancer Center Answers and I would like to thank our special guest for this evening's show, Dr. Dehua Zheng from Beijing, China, for joining us and we look forward to having you on a future show when you come back to visit us here at Yale Cancer Center. Until next time, I am Ed Chu from the Yale Cancer Center wishing you a safe and healthy week.If you have questions or would like to share your comments, go to yalecancercenter.org where you can also subscribe to our podcast and find written transcripts of past programs. I am Bruce Barber and you are listening to the WNPR Health Forum from Connecticut Public Radio.