IN THE UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES

In the Matter of	)	**Docket No.: 9329**
DANIEL CHAPTER ONE,	)	
a corporation, and	)	
JAMES FEIJO,	)	**PUBLIC DOCUMENT**
individually, and as an officer of	)	
Daniel Chapter One	)	
	)	
	)	
	)	
	)	

MEMORANDUM IN OPPOSITION TO
COMPLAINT COUNSEL'S MOTION
FOR SUMMARY DECISION

TABLE OF CONTENTS

a. Bio*Shark
b. 7 Herb Formula
c. GDU
d. BioMixx

C. Respondents Disseminate Accurate, Substantiated Structure and Function Claims for DCO Products, Saying:

> Bioshark *"is pure skeletal tissue of sharks which provides a protein that inhibits angiogenesis -- the formation of new blood vessels. This can stop tumor growth and halt the progression of eye diseases . . ."*
>
> 7 Herb Formula "*purifies the blood, promotes cell repair, fights tumor formation, and fights pathogenic bacteria"*
>
> GDU "*contains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein --even that of unwanted tumors and cysts. This formula also helps to relieve pain and heal inflammation. . .GDU is also used for. . .and as an adjunct to cancer therapy. GDU possesses a wide range of actions including anti-inflammatory and antispasmodic activity. . ."*
>
> BioMixx *"boosts the immune system, cleanses the blood and feeds the endocrine system to allow for natural healing. It is used to assist the body in fighting cancer and in healing the destructive effects of radiation and chemotherapy treatments."*

1. Respondents Make And Substantiate Structure And Function Claims That The Products In Question Assist The Body By Reinforcing Its Natural Innate Capacity To Correct Imbalance And Help The Body Diminish Disease

2. Respondents Claim That The DCO Products Can, By Strengthening The Body's Natural Healing Functions, Assist The Body In Achieving And Maintaining The Balance That Helps It Diminish The Effects Of Cancer Even For Those Taking Chemotherapy

3. Respondents Claim That The DCO Products Strengthen The Body's Natural Healing And Wellness Functions To Assist It In Maintaining Balance And Wellbeing

III. SUMMARY DECISION SHOULD NOT BE GRANTED TO COMPLAINANT WHEN, LIKE HERE, THE FACTS ARE MISREPRESENTED, BUT SHOULD BE GRANTED TO RESPONDENTS WHEN, LIKE HERE, THE ACTUAL FACTS DEMONSTRATE THAT RESPONDENTS COMPLIED WITH THE LAW AND REVEAL THAT THERE

INTRODUCTION

Respondent James Feijo is overseer of Respondent Daniel Chapter One (DCO), a Christian ministry organized as a Washington State Corporation Sole devoted to body, mind and spirit health. Contrary to Complaint Counsel's assertion, Respondents have controverted every point in Complaint Counsels' case. Respondents deny that they claimed that their products were effective in preventing, treating, or curing cancer. They deny that they sell products. They deny that they advertise. They deny that the FTC had legal jurisdiction over their non-profit religious activities. They deny that they lacked competent and reliable scientific evidence to support the statements they made about their product. They deny that their activities are substantially, if at all, in commerce. And they deny that their actions violated Sections 5 and 12 of the Federal Trade Commission Act.

In fact, Complaint Counsel has failed to present evidence on key elements of their case. They have provided no expert testimony on either the proper scientific evidence to support statements or claims about the effects of herbs or the standard that should be applied to evidence that supports statements about the effects of herbs. Nor have they provided any expert testimony on how the net impression of the set of statements made by Respondents should be determined, relying instead on the "common sense" of the person responsible for the Internet surf that identified 130 organizations as violating FTC laws without distinguishing among any of them.

Complaint Counsel have failed to present persuasive evidence that Respondents made the alleged claims and lacked adequate substantiation. For these reasons Complaint Counsel's motion for summary decision on its behalf should be denied. Indeed the failure of Complaint

Counsel to provide any evidence on herbal science, or the factual status of "net impression" in this case, as spelled out in Respondents' Motion for Summary Decision should cause Respondents' Motion for Summary Decision to be granted.

I. STATEMENT OF FACTS

A. DCO and the Feijos Have Not Advertised or Sold Products to Consumers

In 1986, James Feijo and his wife Patricia started DCO as a nonprofit ministry which among its projects began a small health food store. Ex. 1. At this time the Feijos were engaged in home church missionary work in Communist countries including Poland, East Germany and China. They took Bibles to Christian communities that met in homes of their members as part of their "home church" missionary work. As a result of the missionary travels, the Feijos were in East Germany when the Berlin wall fell on November 9, 1989 and in Tiananmen Square during the summer Democracy protests of 1989.

In 2002, James Feijo organized DCO as a corporation sole under Washington state laws. Ex. 1. DCO currently offers consumers 150 to 200 products. Ex. 1. James Feijo serves as DCO's Overseer, trustee for all DCO assets, and custodian of DCO's financial records. Ex. 1. Patricia Feijo is DCO's Secretary. Ex. 1. James Feijo was a high school science teacher and coach, including fitness coach, to high school students and amateur and professional athletes. Patricia Feijo is a trained Homeopath and worked for several years as a bench technician as part of a team doing cancer research on animals at a major

Worcester research center, working in conjunction with a major Worcester Hospital using the experimental chemotherapy on people.

Respondents' principal office and place of business is located in Portsmouth, Rhode Island, where the Feijos live. Ex. 1. Messiah Y'Shua Shalom, a second Washington Corporation Sole established by James Feijo, owns two Rhode Island buildings that house an Order Center, offices and a house (neither DCO nor Messiah Y'Shua Shalom owns a warehouse) used by DCO as offices and a residence. Ex. 1. DCO also owns a three-bedroom property in Deerfield Beach, Florida, where the Feijos and other individuals who are part of the DCO community and guests stay. DCO also owns two Cadillac cars—one used and one bought at a last-year's model sale—which together cost DCO $56,000 or an average of $28,000 each—which the Feijos and other persons associated with DCO use. Ex. 1. DCO pays the Feijos' expenses but does not pay them salaries. Ex. 1.

DCO has never purchased, bartered or otherwise arranged for an advertisement of the herbs or other products it provides to its followers. All its communications are on its web site, in its rarely published news letters and handbooks which it provides for free or small donations, or on its daily radio program which are all directed to individuals who are part of the DCO audience and which are outspokenly clear that they are not selling drugs but rather providing a critique of current health practices, a campaign for "health freedom" and complementary and alternative approaches to conventional attitudes about wellness—including products—as a concrete expression of their campaign for more health choice. The program for well being pursued by Daniel Chapter One is grounded in the Bible.

B. Daniel Chapter One Maintains A Non Profit Charitable Program That Allows Any User Of DCO Products To Obtain Free DCO Products And Accepts Donations From Other DCO Product Users

At its origination Daniel Chapter One offered free products to any individual who wanted them. When this turned out to be an unmanageable program DCO created a new program that informed individuals who desired and needed free nutritional products to go a church and seek the support of a minister who could inform DCO of the need and desire. The minister would then act as a reference for the individual to Daniel Chapter One. As a result of this effort a number of churches have received herbal and nutritional products for distribution to individuals both for free and for donations from the individuals able to make donations and also have shared in the monetary donations made for the herbal and nutritional products provided by DCO.

1. The Feijos Developed The Formulas For The DCO Products And Contracted With FDA Regulated Laboratories To Ensure The Quality Of Those Products And The Accuracy And Legality Of The Product Labels.

As a coach, including fitness coaching, James Feijo observed the relationship between various nutritional products, herbs and other dietary supplements and athletic performance. He also noted, as a devout Christian, that a number of Bible verses created dietary information that paralleled his observations of the athletes he coached. For example, Daniel Chapter One in the Bible tells the story of a group of individuals who resisted eating the King's prescribed diet. They talked the authorities into letting them eat a special, and they thought healthier, diet than that prescribed by the King's government.

While eating this diet, which was essentially vegetarian, the Bible reports they indeed did have improved heath over the King's men.

Based on his readings of the Bible and his observations of the athletes he coached James Feijo developed, created, and arranged for the production of various DCO Products. Ex. 1. He contracted with various FDA regulated manufacturing facilities for them to ensure the safety of the products, the quality and proper amounts of ingredients to meet the dosage requirement of his formulations, and the accuracy and legal compliance of the labels on the products and to ensure that the identity and amount of each ingredient is contained on the product labels. Ex. 1. The companies provided the services to ensure that the dietary supplements met quality and labeling requirements. Universal Nutrition, a respected regulated manufacturer of dietary supplement products, is one firm that DCO contracts with to manufacture approximately 35-40 products, including Bio*Shark, GDU, and BioMixx. Ex. 1 The tea like drink 7 Herb Formula, the fourth product singled out by the FTC, is manufactured and provided to DCO in the same manner by a different company after the formulation was developed, based on a well known previously existing product, by that company's herbal consultant. Ex. 2.

Patricia Feijo, drawing on her research technician background and training as a homeopath, reviewed all DCO products' directions, recommended usages and statements made about the DCO products for the express purpose of ensuring that they contained no health claims, that they properly stated the structure and function nature of the product effects and that no statements were made for the products which were not substantiated in

the scientific literature that supports the use of dietary supplements that are herbs and nutritional products. Ex. 1.

2. Respondents Do Not Sell Products To Consumers

From time to time James Feijo establishes a recommended donation amount for the DCO products. However he does not "price" to the market as a for profit business would but rather leaves the recommended donations in place long after the market prices on similar products sold by for profit businesses have been raised by their sellers. Ex. 1.

The fact that about a thousand consumers have purchased DCO's products supports the assertion of Respondents that DCO, which has been in existence for 24 years, is something other than a business. Ex. 1. DCO generates approximately $2 million in annual sales annually as shown by its records for 2006, 2007, and 2008. Ex. 1. This too suggests that it is something other than a business, since the products it makes available are dietary supplements which are part of a market that sell about $24 billion worth of product a year. Daniel Chapter one is not organized or run to make, and does not make, a profit.

The recommended donation for DCO products is comparable to or lower than similar dietary supplement product prices for products available in the for profit dietary supplement market. If individuals are unable to make the recommended donation they can make a lower donation or no donation at all by contacting a minister who will inform DCO of their needs. During its twenty four years of activity DCO has received virtually no complaints, about quality, value, or nature of the information supplied. During the same

time it has received dozens if not hundreds of testimonials to the value and usefulness of both the DCO products and its various informational programs.

The testimonials received both in writing and on a daily basis from listeners to their radio program underscore the existence of a community of individuals involved with the message of "health freedom" and "health choice" that is the backbone of the DCO health ministry. The testimonials tend to be spontaneous and heart felt. For example ,one user of DCO products and believer in the DCO message created the 7Herb Formula web site and donated it to the DCO ministry.

The message that DCO is sharing with the individuals in its community create what the Supreme Court calls an Expressive Association.

3. The DCO Products

a. Bio*Shark

As a very successful high school athletic coach, Jim Feijo designed a computer program to track his athletes. He expanded to internationally competitive amateur athletes and then to professionals. He noted that the stress on an extreme athlete created nutritional and physiological effects similar to those experienced by diseased individuals. This led him to design a program for extreme athletes and ill individuals to strengthen the natural structures and functions for the body that build endurance, strength, balance and the ability to withstand disease.

He applied the term "BioMolecular Nutritional Health" to the integrated ideas based on his experience and built into his program measured nutritional factors in relation to the structure and function of the body. He used these ideas to design the products that

he had made especially for DCO. Thus he formulated Bio*Shark out of shark cartilage and several herbs. Ex. 1.

Each Bio*Shark label directs users to take 2-3 capsules three times a day or as directed by a physician or by a "BioMolecular Nutrition health care professional." Ex. 1. BioMolecular nutrition also includes and draws on the intangible—spiritual—components of performance, integrating "the spiritual and physical" aspects of Respondents' system and products. Expert report and deposition of Jay Lehr who is a scientific expert, a triathlon racer and a user of DCO products. Ex. 1. Respondents recommend a donation for one bottle of Bio*Shark, as they do for all their products, that is an amount comparable to the price paid for similar products in the dietary supplement industry. Ex. 1. Respondents estimate that approximately 50% of the mark up on all their products goes to support churches and the five health food stores and health professional offices that have asked to carry DCO products and the support of the DCO free and reduced donation programs.

Respondents' expert Dr. Lamont concluded that "There is a reasonable basis for the claims that pure skeletal tissue of sharks provides a protein that inhibits angiogenesis - the formation of new blood vessels. It is also reasonable to claim that angiogenesis has been demonstrated to inhibit tumor growth in some studies." Ex. 3.

b. 7 Herb Formula

7 Herb Formula is a tea made of four herbs that have been used for decades in herbal healing with three additional herbs added by DCO after review and evaluation by an herbal professional in conjunction with an herbal manufacturer. Ex. 2. Both Respondents' herbal experts Dr. Duke and Dr. Lamont concluded "There is a reasonable basis for the claims that the ingredients of 7 Herb Formula '..., fights tumor formation, and fights pathogenic bacteria.'"

Ex. 4 and Ex. 3.

c. GDU

"There is a reasonable basis for the claims that the ingredients of GDU 'contains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein — even that of unwanted tumors and cysts. This formula also helps to relieve pain and heal inflammation. . GDU is also used for. . .and as an adjunct to cancer therapy. GDU possesses a wide range of actions including anti-inflammatory and antispasmodic activity. . .'" Ex. 4

"There is a reasonable basis to claim that the ingredients of GDU contain bromelain, a source of natural proteolytic enzymes from the pineapple, which helps digest unwanted proteins. GDU also contains turmeric, feverfew and quercetin, which help to reduce inflammation and relieve pain. Next, it is reasonable to claim that these ingredients as a whole may be used as an adjunct to cancer therapy, and that the ingredients possess a wide range of actions as anti-inflammatory agents." Ex. 3.

d. BioMixx

"There is a reasonable basis for the claims that the ingredients of BioMixx 'boosts the immune system,...to allow for natural healing. It is used to assist the body in fighting cancer and in healing the destructive effects of radiation and chemotherapy treatments.'" Ex. 4.

"There is a reasonable basis to claim that the ingredients of BioMixx boost the immune system, build lean body mass and support healing. It is also reasonable to claim that these ingredients assist the body in fighting cancer, cachexia and in healing the destructive effects of radiation and chemotherapy treatments." Ex. 3.

C. Respondents Disseminate Accurate, Substantiated Structure and Functions Claims for DCO Products...

1. Respondents Say:

a. Bioshark *"is pure skeletal tissue of sharks which provides a protein that inhibits angiogenesis -- the formation of new blood vessels. This can stop tumor growth and halt the progression of eye diseases . . ."*

b. The tea 7 Herb Formula *"purifies the blood, promotes cell repair, fights tumor formation, and fights pathogenic bacteria"*

c..GDU *"contains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein --even that of unwanted tumors and cysts. This formula also helps to relieve pain and heal inflammation . . . GDU is also used for . . . and as an adjunct to cancer therapy. GDU possesses a wide range of actions including anti-inflammatory and antispasmodic activity. . ."*

d. BioMixx *"boosts the immune system, cleanses the blood and feeds the endocrine system to allow for natural healing. It is used to assist the body in fighting cancer and in healing the destructive effects of radiation and chemotherapy treatments."*

e. On each product label: "These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease."

f. Each of Respondents'' web sites says "The information on this website is intended to provide information, record, and testimony about God and His Creation. It is not intended to diagnose a disease. The information provided on this site is designed to support, not replace, the relationship that exists between a patient/site visitor and his/her health care provider. Caution: some herbs or supplements should not be mixed with certain medications."

2. Respondents do not say that "the DCO Products were effective in preventing, treating, or curing cancer."

Respondents not only did not say that their products are "effective" in preventing, treating or curing cancer," they do not believe it. They believe that the body has mechanisms to heal itself. They present their message, in the language set out about each of the products above, that says their products affect these mechanisms, assisting them to

perform their function or enhance their structure. Dr. Lamont and Dr. Duke explicitly said that herbal science supports the claims made by DCO. Ex. 3 and Ex. 4.

Respondents clearly and unequivocally offer a different, natural, choice to their followers. It is a choice that interested individuals can make separate from or in conjunction with standard chemotherapeutic or radiation treatments. In her deposition, Dr. Lamont described the mindset of someone who might share Respondents' view of this set of alternatives. She said:

> Occasionally there will be a person who, for maybe religious purposes or they just live in a different mindset, that there is no way they're going to subject themselves to the traumas and poisoning effect of chemotherapy and radiation. And let's face it. It is poisoning.
>
> I mean, these are cytotoxic agents and not in the sense of, you know, curcumin could kill a cancer cell, but these go in and kill all rapidly reproducing cells in the body. And you lose muscle mass and you lose multiple organ function, and it drives many people to the brink of death just from the therapy. And if they're lucky, they recuperate and can live with that five-year survival rate and be proclaimed a success. Lots don't. And I think -- what are we up to --65 percent now of people can live five years past their -- concluding their treatment. Ex. 5.

3.. Respondents make and substantiate structure and function claims, as set out for the products above, that the products in question assist the body by reinforcing its natural innate capacity to correct imbalance and help the body diminish disease by

strengthening the body's natural healing functions,
to assist it in maintaining coherence and wellness, and

assisting the body in achieving and maintaining the structural balance that helps it diminish the effects of cancer and other disease including for those taking chemotherapy.

Respondents assert that the statement or claims made about the products they provide to members of their community were intended to be in support of Normal Structure and Function Claims permitted under the *Dietary Supplement Health and Education Act of 1994* and the regulations thereunder. The Respondents further assert that

they do in fact have reasonable evidence for their claims, including, in addition to the testimony and reports of their expert witnesses which explicitly state that herbal science supports the DCO statements for each product, Traditional Use and Biblical substantiation which Respondents assert are valid and lawful substantiation for claims made particularly in an Expressive Association context.

Respondents assert that they and their communicants are engaging in Expressive Association as a private association, protected by the First Amendment to the Constitution for the United States of America. See: *Boy Scouts Of America V. Dale* (99-699) 530 U.S. 640 (2000) 160 N. J. 562, 734 A. 2d 1196. The relatively small number of users of DCO products, the high ratio of information to product use—two hours a day on the radio, several web sites, news letters and various manuals—all of which repeat the structure-function message of the statements presented for the products above, and five small stores that asked to make DCO products available to their communities all reinforce the fact that DCO is in a community of people with shared beliefs involved in an Expressive Association rather than a business organized to make a profit.

Complaint Counsel misread the nature of the dispute in this case. There is here a paradigm clash. Counsel and the FTC assert and apparently believe that the only legitimate proper evidence for a party to rely on in making claims about dietary supplements such as herbs is the classical testing of dangerous single chemical entities. As Respondents' expert Dr. Rustum Roy made clear, this is not an appropriate approach to testing natural products that pose no inherent risk, have been around for centuries—maybe as long as the Bible—and have traditional use profiles.

As Respondents' herbal expert Dr. James Duke pointed out, it is estimated that there are as many as five thousand single chemical entitles in turmeric, one herb used by Respondents. It is patently obvious that the classical testing of herbal ingredients in the way dangerous single chemical entities are tested is impractical, unwise and dangerous—depriving individuals of herbs useful to their health. The fact of the matter is that the herbal world has accepted scientific norms—which by the way Dr. Miller, Complaint Counsel's cancer expert, acknowledged that he was unfamiliar with--with which Respondents have complied.

The fact that Complaint Counsel has chosen to argue that the only way to comply with the law is to subject herbs to the same standard as single chemical entities means that Counsel has failed to meet the FTC's responsibility to address the nature of the herbal claims made—Counsel has not provided evidence on the net impression of the claims, the nature of the audience to which they are addressed, substantiation, the state interest being vindicated or the existence of herbal science that supports Respondents'. Their failure to address these issues means that Complaint Counsel is not entitled to a summary decision. In fact, their failure to address these issues entitles Respondents to a summary decision as set out in Respondents' Motion for Summary Decision.

Citizens Have the Right to Seek Alternatives to Standard Medicine

The Respondents assert the right of consumers to intentionally forgo standard treatment and engage in other methods to achieve and maintain a healthy status. This interest of citizens is especially significant in the context of a private association for religious dietary and nutritional expressive activities.

In the case of *State v Biggs* (46 SE Reporter 401, 1903) the North Carolina Supreme Court dealt with a person who was advising people as to diet, and administering massage, baths and physical culture. In the Biggs case, the defendant "advertised himself as a 'nonmedical physician'... [and] held himself out to the public to cure disease by 'a system of drugless healing'..." p.401.

That Court held that there could be no "state system of healing" p.402 and while "Those who wish to be treated by practitioners of medicine and surgery had the guaranty that such practitioners had been duly examined...those who had faith in treatment by methods not included in the 'practice of medicine and surgery' as usually understood, had reserved to them the right to practice their faith and be treated, if they chose, by those who openly and avowedly did not use either surgery or drugs in the treatment of diseases..." p.402. Biggs was acquitted.

"The state has not restricted the cure of the body to the practice of medicine and surgery -- allopath, as it is termed, -- nor required that, before anyone can be treated for any bodily ill, the physician must have acquired a competent knowledge of allopath and be licensed by those skilled therein. To do that would be to limit progress by establishing allopathy as the state system of healing, and forbidding all others. This would be as foreign to our system as a state church for the cure of souls. All the state has done has been to enact that, when one wished to practice medicine or surgery, he must, as a protection to the public [not to the doctor], be examined and licensed by those skilled in surgery and medicine. To restrict all healing to that one kind -- to allopath, excluding homeopathy, osteopathy, and all other treatments -- might be a protection to doctors in surgery and medicine; but that is not the object of the act, and might make it unconstitutional, because

creating a monopoly." North Carolina's Supreme Court in *State v MacKnight*, 42 S.E. 580, 1902 at p 582.

In *Hillman/Kohan Eyeglasses, Inc v New Jersey State Board*, 169 NJ Super 259, the Court observed that, absent compelling health reasons, consumers should have choices in the competitive marketplace, and further, that if the legislature had intended to create a monopoly, it would have done so by specific grant of monopoly, which it did not do in the case of optometry, nor, we assert, in the case of nutritional support for persons concerned with diagnosed diseases such as cancer.

People have the right to obtain unlicensed, private professional health care services. The Southern District of Texas case of *Andrews v. Ballard* (498 F Supp 1038, 1980) is cited as a leading authority for the propositions that (1) a decision to obtain (in this case) acupuncture needle treatments from one not licensed as a medical doctor is a constitutional right encompassed by the right of privacy (p.1048) and (2) the provisions of the medical practices act, insofar as they limit the use of acupuncture needles to licensed physicians, are unconstitutional (p.1051, et seq.).

The North Carolina Supreme Court concluded, nearly a century ago in *State v. Biggs*, supra., at p.405: "Medicine is an experimental, not an exact science. All the law can do is to regulate and safeguard the use of powerful and dangerous remedies, like the knife and drugs, but it cannot forbid dispensing with them. When the Master, who was himself called the Good Physician, was told that other than his followers were casting out devils and curing diseases, he said, 'Forbid them not.'" p.405.

Traditional Use Claims and the FTC

Based upon the FTC's own Internet postings, Complaint Counsel has ignored a significant basis for the substantiation of the nutritional claims made by the Respondents.

"Claims based on historical or traditional use should be substantiated by confirming scientific evidence, or should be presented in such a way that consumers understand that the sole basis for the claim is a history of use of the product for a particular purpose. A number of supplements, particularly botanical products, have a long history of use as traditional medicines in the United States or in other countries to treat certain conditions or symptoms. Several European countries have a separate regulatory approach to these traditional medicines, allowing manufacturers to make certain limited claims about their traditional use for treating certain health conditions. Some countries also require accompanying disclosures about the fact that the product has not been scientifically established to be effective, as well as disclosures about potential adverse effects. At this time there is no separate regulatory process for approval of claims for these traditional medicine products under DSHEA and FDA labeling rules." http://www.ftc.gov/bcp/conline/pubs/buspubs/dietsupp.htm FTC - Dietary Supplements: An Advertising Guide for Industry.

FTC continues - "In assessing claims based on traditional use, the FTC will look closely at consumer perceptions and specifically at whether consumers expect such claims to be backed by supporting scientific evidence. Advertising claims based solely on traditional use should be presented carefully to avoid the implication that the product has been scientifically evaluated for efficacy. The degree of qualification necessary to communicate the absence of scientific substantiation for a traditional use claim will depend in large part on consumer understanding of this category of products. As consumer

awareness of and experience with "traditional use" supplements evolve, the extent and type of qualification necessary is also likely to change.

"There are some situations, however, where traditional use evidence alone will be inadequate to substantiate a claim, even if that claim is carefully qualified to convey the limited nature of the support. In determining the level of substantiation necessary to substantiate a claim, the FTC assesses, among other things, the consequences of a false claim. Claims that, if unfounded, could present a substantial risk of injury to consumer health or safety will be held to a higher level of scientific proof. For that reason, an advertiser should not suggest, either directly or indirectly, that a supplement product will provide a disease benefit unless there is competent and reliable scientific evidence to substantiate that benefit. The FTC will closely scrutinize the scientific support for such claims, particularly where the claim could lead consumers to forego other treatments that have been validated by scientific evidence, or to self-medicate for potentially serious conditions without medical supervision.

"The advertiser should also make sure that it can document the extent and manner of historical use and be careful not to overstate such use. As part of this inquiry, the advertiser should make sure that the product it is marketing is consistent with the product as traditionally administered. If there are significant differences between the traditional use product and the marketed product, in the form of administration, the formulation of ingredients, or the dose, a "traditional use" claim may not be appropriate.

"Example 29: The advertiser of an herbal supplement makes the claim, "Ancient folklore remedy used for centuries by Native Americans to aid digestion." The statement about traditional use is accurate and the supplement product is consistent with the

formulation of the product as traditionally used. However, if, in the context of the ad, this statement suggests that there is scientific evidence demonstrating that the product is effective for aiding digestion, the advertiser would need to include a clear and prominent disclaimer about the absence of such evidence.

"Example 30: A supplement manufacturer wants to market an herbal product that has been used in the same formulation in China as a tonic for improving mental functions. The manufacturer prepares the product in a manner consistent with Chinese preparation methods. The ad claims, "Traditional Chinese Medicine — Used for Thousands of Years to Bring Mental Clarity and Improve Memory." The ad also contains language that clearly conveys that the efficacy of the product has not been confirmed by research, and that traditional use does not establish that the product will achieve the claimed results. The ad is likely to adequately convey the limited nature of support for the claim.

One can see from the above FTC analysis that RISK and BENEFIT will be weighed on a spectrum of risk – at one end are products that support natural structure and function and at the other end are products that claim to treat life-threatening diseases.

The distinction between "treat" life-threatening diseases and offering "therapies" that may benefit normal structure and function for persons facing such diseases is well founded in law. Let us therefore consider the use of the terms "therapy" and "therapeutic" with reference to alternative health practices. It compares those terms to the term-of-art, "treatment of disease." Alternative health practices can be generally defined as traditional

or other practices that are used by individuals, often for self-help, to achieve and maintain a healthy status, either on their own or complementary to standard medical care. These practices do not include the potentially dangerous use of invasive techniques and toxic drugs that are the province of licensed medicine. They do, however, include developing therapies and nonstandard approaches that are outside the scope of licensed medicine. These are sometimes referred to as "Complementary and Alternative Modalities" (CAM).

CAM health practices can be generally defined as traditional or other practices that are used by individuals, often for self-help, to achieve and maintain a healthy status, either on their own or complementary to standard medical care. These practices do not include the potentially dangerous use of invasive techniques and toxic drugs that are the sole province of licensed medicine. They do, however, include developing therapies and nonstandard approaches that are outside the scope of licensed medicine. Such approaches as Nutrition, Homeopathy, Hands-on-Healing, Magnetics, Sound Health, Energy Therapies, Biofeedback, Meditation, Breath Work, Reiki, Chi Gong, Tai Chi and Herbology are examples of complementary and alternative therapeutic practices. Traditional Chinese, Ayurvedic medicine or folk remedies and "Dr. Mom" home remedies are also examples of CAM practices.

The terms “therapy” and “therapeutic” do not occur, for example, in the context of the Dietary Supplement Health and Education Act of 1994 (DSHEA). Rather, that statute, passed unanimously by Congress, tells us that Dietary Supplements may not “diagnose, treat, cure or prevent” any disease. It does not specifically forbid the use of the word “therapy” (or “therapeutic”). Under the Supreme Court’s rule in the *Thompson v Western*

Medical 535 U. S. 357 (2002) 238 F.3d 1090, affirmed. case, we should expect that these words would not be forbidden by the Courts.

Further, the Code of Medical Ethics of the American Medical Association has also begun to acknowledge an independent use of the term "therapy." The original Hippocratic Oath, with its injunction to "Do no harm." has been replaced by a complex Code detailing the relationship between physician and patient and alternative practitioner. Changes made during the early 1990's were inspired by anti-trust lawsuits brought during the 1980's by chiropractors and others. These changes are just now becoming recognized by regulators and courts.

While "treatment which has no scientific basis" remains condemned (Opinion 3.01), under Opinion 3.04, physicians are free to "refer" a patient "for therapeutic or diagnostic services to another physician, limited practitioner or any other provider of health care services permitted by law to furnish such services, whenever he or she believes that this may benefit the patient." Thus, unscientific "treatment" is distinguished from "health care services permitted by law."

"Treatment" -- which means the use of standard medicine and surgery to "cure" disease -- is distinguished from other health care services (therapies) which need only meet the lesser "may benefit" standard. While physicians "prescribe" treatments for disease, therapies that may benefit may be subject to "referral" thereby further indicating the distinction. Thus, for example, Dietary Supplements that support normal structure and function to support therapeutic outcomes can be seen to complement licensed medicine, but not to be held to its strictures, nor limited in its practice to licensed physicians. Since

such therapies are not prescription services, members of the public may choose such services without the permission of their physician.

The claims made for Therapeutic Nutritionals must, of course, be allowed Structure and Function Claims. Thus, for example, one cannot claim that a nutrient (except for plant sterols) lowers cholesterol levels – since there is now a "disease" of hypercholesterolemia – but can claim that a nutrient maintains normal cholesterol levels for persons with normal cholesterol. A purveyor may say that a certain combination of multivitamins was designed to maintain normal structure and function for a person with diabetes, but not that the combination treats diabetes or affects the blood sugar level. Similarly, any claim made for any alternative practice must meet the FTC standard of "truthful and not misleading" and must be based on reasonable substantiation. Telling people what an alternative practitioner does NOT do is as important as telling what is done. It is therefore important to include the proper Disclaimers for any use of alternative practices.

As the High Court said in *Thompson*, "We have previously rejected the notion that the Government has an interest in preventing the dissemination of truthful commercial information in order to prevent members of the public from making bad decisions with the information. * * * Even if the Government did argue that it had an interest in preventing misleading advertisements, this interest could be satisfied by the far less restrictive alternative of requiring ... a warning..."

What is the proper level of substantiation for alternative practice claims? It is not the "significant scientific agreement" required of drug claims, but rather, the general "competent scientific evidence" standard that applies to all commercial claims. That does not necessarily mean that purveyors need to have multiple double-blind experiments (as

may be required for drug approval). Such substantiation just needs to be competent and scientific.

This means research studies (which is when scientists review the work of others and apply it to specific questions) and clinical trials (which can be as formal as double-blind, placebo controlled investigations) as well as traditional knowledge and clinical experience all have a role to play, but ultimately, such substantiation must rest on the informed professional opinion of some credentialed person who can (in the case of Dietary Supplements, for example) sign onto the Structure and Function Claims Notice to the FDA, attesting that "the notifying firm has substantiation that the Statement to which this Notice applies is truthful and not misleading." (Regulations under 21 U.S.C. 403(r) (6)).

Many times people seek to make claims based on Traditional Uses. This is what the FTC says, "Claims based on historical or traditional use should be substantiated by confirming scientific evidence, or should be presented in such a way that consumers understand that the sole basis for the claim is a history of use of the product for a particular purpose. A number of supplements, particularly botanical products, have a long history of use as traditional medicines in the United States or in other countries to treat certain conditions or symptoms. Several European countries have a separate regulatory approach to these traditional medicines, allowing manufacturers to make certain limited claims about their traditional use for treating certain health conditions. Some countries also require accompanying disclosures about the fact that the product has not been scientifically established to be effective, as well as disclosures about potential adverse effects. At this time there is no separate regulatory process for approval of claims for these traditional medicine products under DSHEA and FDA labeling rules. * * * The advertiser

should also make sure that it can document the extent and manner of historical use and be careful not to overstate such use. As part of this inquiry, the advertiser should make sure that the product it is marketing is consistent with the product as traditionally administered. If there are significant differences between the traditional use product and the marketed product, in the form of administration, the formulation of ingredients, or the dose, a "traditional use" claim may not be appropriate."

Throughout the world today people are looking to traditional methodologies and leading-edge CAM techniques because they offer alternatives to toxic, expensive drugs with their dangerous side effects, un-manageable and unreasonable costs and other invasive technologies of modern medicine. This search for alternatives is protected by the fundamental right of individuals to communicate and learn; to heal and be healed.

This has been settled law for over a hundred years.

"The state has not restricted the cure of the body to the practice of medicine and surgery -- allopathy, as it is termed, -- nor required that, before anyone can be treated for any bodily ill, the physician must have acquired a competent knowledge of allopathy and be licensed by those skilled therein. To do that would be to limit progress by establishing allopathy as the state system of healing, and forbidding all others. This would be as foreign to our system as a state church for the cure of souls. All the state has done has been to enact that, when one wished to practice medicine or surgery, he must, as a protection to the public [not to the doctor], be examined and licensed by those skilled in surgery and medicine. To restrict all healing to that one kind -- to allopathy, excluding homeopathy, osteopathy, and all other treatments -- might be a protection to doctors in surgery and

medicine; but that is not the object of the act, and might make it unconstitutional, because creating a monopoly." North Carolina's Supreme Court in *State v MacKnight*, 42 S.E. 580, 1902 at p 582.

The problem raised by these examples and the issues they address is not how they should be resolved. The problem is that Complaint Counsel has comely ignored they existence and ;owe ahead arguing the only answer the atsuppled by their cancer expert as appropriate for single entity inherently dangerous chemicals that might have some benefit that outweighs there harm. Cjompnat

Counsel filed to address the issues that are at the heart of the case. Respondent has presented evidence that they complied with the standards that govern herbal claims. Complaint counsel has presented no evidence they have not.

CONCLUSION

Complaint Counsel's motion for Summary Decision should be denied.

Dated this 10th day of March, 2009.

Swankin & Turner
Attorneys for Respondents

By: _____
James S. Turner
1400 16th Street, NW, Suite 101
Washington, DC 20036
Phone: 202-462-8800
Fax: 202-265-6564
Email: jim@swankin-turner.com

Exhibit 1

UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES

In the Matter of	)	
DANIEL CHAPTER ONE,	)	
a corporation, and	)	**Docket No. 9329**
JAMES FEIJO,	)	**Public Document**
individually, and as an officer of	)	
Daniel Chapter One	)	

COMPLAINT COUNSEL'S STATEMENT OF MATERIAL FACTS AS TO WHICH THERE IS NO GENUINE ISSUE

Pursuant to Commission Rule of Practice 3.24, 16 C.F.R. § 3.24, and in support of their motion for summary decision, Complaint Counsel submit this Statement of Material Facts as to Which There is No Genuine Issue.

A. DANIEL CHAPTER ONE AND THE FEIJOS

1. Respondent Daniel Chapter One ("DCO") is a corporation sole organized in 2002 under the laws of the state of Washington. Respondents' Answer to FTC's Compl., dated Oct. 14, 2008 (hereinafter referred to as the "Answer) at ¶ 1; *see also* Complaint Counsel's Summary Decision Exhibit (hereinafter referred to as S.D. Ex. __) 3 (Declaration of FTC Investigator Michael Marino, dated Feb. 23, 2009, (hereinafter referred to as "Marino Dec.") at ¶ 23, Exhibit L).

2. Respondent James Feijo is responsible for the activities of Respondent DCO as its Overseer. Answer ¶ 2.

3. Patricia Feijo, Respondent James Feijo's wife, is the secretary for DCO. Deposition of Patricia Feijo, January 14, 2009, (hereinafter referred to as *P. Feijo Dep. Tr.*) at10, l. 17-21; 52, l. 3-16.

4. Respondent James Feijo and his wife, Patricia, originally started DCO as a health food store in 1986. *P. Feijo Dep. Tr.* at 39, l. 14-25 - 40, l. 1-20.

5. Respondents' principal office and place of business is located at 1028 East Main Road, Portsmouth, Rhode Island 02871. Answer ¶ 1; Deposition of James D. Feijo, January 13, 2009, (hereinafter referred to as *J. Feijo Dep. Tr.*) at 99, l. 10-18.

6. James Feijo sold DCO products prior to registering as a corporation sole. *J. Feijo Dep. Tr.* at 224, l. 4-6.

7. DCO offers 150 to 200 products today. *J. Feijo Dep. Tr.* at 37, l. 11-13.

8. Respondent James Feijo is responsible for the development, creation, and production of Bio*Shark, 7 Herb Formula, GDU, and BioMixx (collectively, the "DCO Products"). S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 2*); *J. Feijo Dep. Tr.* at 116, l. 17-21.

9. Respondent James Feijo is the trustee for all Daniel Chapter One assets, including all funds which are held in trust. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 9*).

10. Daniel Chapter One has a bank account with Citizens Bank. Deposition of Jill Susan Feijo, January 22, 2009, (hereinafter referred to as *Jill Feijo Dep. Tr.*) at 33, l. 19-23.

11. Patricia Feijo is a signatory to DCO's bank account and writes checks on behalf of the DCO account. *P. Feijo Dep. Tr.* at 54, l. 8-19.

12. Jill Feijo, James Feijo's daughter and Respondents' corporate representative, also has authority to write checks on behalf of the DCO account. *Jill Feijo Dep. Tr.* at 34, l. 15-17.

13. Respondent James Feijo receives all the bank statements for the DCO account. *Jill Feijo Dep. Tr.* at 34, l. 10-11.

14. Respondent James Feijo maintains the financial records for DCO. *Jill Feijo Dep. Tr.* at 47, l. 6-8.

15. Respondent DCO defrays James Feijo's expenses as Overseer and provides for his support. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 3*).

16. Respondent James Feijo pays his daughter Jill $700 per week cash for her work at Daniel Chapter One. *Jill Feijo Dep. Tr.* at 13, l. 3-9.

17. DCO has two buildings in Portsmouth, Rhode Island – one contains the office with the Order Center and the other contains the products that DCO offers to the public. *Jill Feijo Dep. Tr.* at 20, l. 9-24.

18. DCO is not registered with the Internal Revenue Service as a charity. *J. Feijo Dep. Tr.* at 45, l. 11-13.

19. Messiah Y'Shua Shalom, a Washington corporation sole, owns the property that Respondents use in Rhode Island. *J. Feijo Dep. Tr.* at 72, l. 7-25 - 73, l. 1-3; *see generally* S.D. Ex. 3 (Marino Dec. at ¶ 23, Exhibit M).

20. Respondent James Feijo is the overseer for Messiah Y'Shua Shalom. *J. Feijo Dep. Tr.* at 72, l. 7-25 - 73, l. 1-3; *see also* S.D. Ex. 3 (Marino Dec. at ¶ 23, Exhibit M).

21. Messiah Y'Shua Shalom houses the buildings where Respondents perform their ministry of Daniel Chapter One. *J. Feijo Dep. Tr.* at 72, l. 7-25 - 73, l. 1-3.

22. Daniel Chapter One owns a three-bedroom property in Deerfield Beach, Florida. *J. Feijo Dep. Tr.* at 70, l. 22-25 - 71, l. 1-15.

23. James and Patricia Feijo live in the properties owned by Messiah Y'Shua Shalom and DCO. *J. Feijo Dep. Tr.* at 70, l. 25 - 71, l. 1-2; 78, l. 20-25 - 79, l. 1.

24. Daniel Chapter One owns two cars - a 2003 Cadillac and a 2004 Cadillac. DCO purchased one Cadillac new and the other Cadillac used. *J. Feijo Dep. Tr.* at 71, l. 16-23.

25. Respondent James Feijo uses the two Cadillacs owned by DCO. *J. Feijo Dep. Tr.* at 96, l. 9-10, 14-16; 97, l. 7-13.

26. Respondents practice a science they call BioMolecular Nutrition. S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3* at FTC-DCO 0307).

27. According to Respondents, "[t]here are two aspects of BioMolecular Nutrition, the spiritual and the physical." S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3* at FTC-DCO 0307).

28. "The principles of BioMolecular Nutrition were those missing principles needed to bind together those of the nutritionists and the biochemists." S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3* at FTC-DCO 0309).

29. According to Respondents, "[b]ecause of BioMolecular nutritional products developed at that time, we've been able to support other naturopathic disciplines – chiropractic, acupuncture, herbology, and homeopathy – and using the principles of BioMolecular Nutrition has allowed many natural health practitioners to be complete." S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3* at FTC-DCO 0308).

B. RESPONDENTS DISTRIBUTE THEIR PRODUCTS IN COMMERCE TO CONSUMERS

30. Respondents distribute the DCO Products in commerce. Answer ¶ 4; *J. Feijo Dep. Tr.* at 102, l. 13-16.

31. Respondent DCO has an 800 number and a call center for consumers to purchase the DCO Products. *P. Feijo Dep. Tr.* at 67, l. 7-13; *Jill Feijo Dep. Tr.* at 15, l. 5-14.

32. Respondent James Feijo created, managed, and maintained the toll-free telephone number, designed so that consumers can order the DCO Products. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 33*).

33. On the front page of their BioMolecular Nutrition Product Catalog, Respondents inform consumers to "Call Toll FREE 1-800-504-5511 or shop online at www.danielchapterone.com." S.D. Ex. 6 (*J. Feijo Dep. Ex. 6 - BioMolecular Nutrition Product Catalog* at FTC-DCO 0060).

34. Respondents operate the website www.danielchapterone.com. Answer ¶ 5; *J. Feijo Dep. Tr.* at 62, l. 10-13.

35. DCO also operates the Web sites dc1pages.com and dcstore.com. *J. Feijo Dep. Tr.* at 232, l. 21-25 - 233, l. 1-19.

36. Consumers learn of DCO's 800 number from the DCO Web site, the BioGuide, and the radio program. *Jill Feijo Dep. Tr.* at 15, l. 15-25.

37. Respondent James Feijo established the price of the DCO Products. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 25*); *P. Feijo Dep. Tr.* at 77, l. 13-16.

38. Jill Feijo has supervised Respondent DCO's Order Center for the past nine years and has taken telephone orders. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 30*).

39. DCO employs Kevin Vandeburg, Axel Busche, and Jay Butler to work in the building that contains the DCO Products and to ship the DCO Products ordered by consumers. *Jill Feijo Dep. Tr.* at 21, l. 7-22.

40. DCO's Order Center is open Monday through Friday from 9:00 a.m. to 8:00 p.m. *Jill Feijo Dep. Tr.* at 16, l. 5-10.

41. DCO receives payments through its Order Center through credit card and COD. *Jill Feijo Dep. Tr.* at 18, l. 6-10.

42. DCO also accepts consumers' orders on the Internet. *Jill Feijo Dep. Tr.* at 18, l. 11-13.

43. DCO's Web site contains a tab inviting consumers to shop at DCO's "On-Line Store." S.D. Ex. 7 (*J. Feijo Dep. Ex. 4 - Exhibits A - D to Administrative Complaint* at FTC-DCO 0011); S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 1*).

44. DCO's Web site contains an icon inviting consumers to "Buy Now." S.D. Ex. 7 (*J. Feijo Dep. Ex. 4 - Exhibits A - D to Administrative Complaint* at FTC-DCO 0011); S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 1*).

45. Respondents' acquisition costs for the products they sell is 30 percent of the price Respondents charge to consumers for products such as 7 Herb Formula. *J. Feijo Dep. Tr.* at 232, l. 3-8.

46. Over a thousand consumers have purchased DCO's products. *P. Feijo Dep. Tr.* at 57, l. 13-18.

47. Respondents have generated approximately $2 million in annual sales for the years 2006, 2007, and 2008 for all of DCO's two-hundred products. *J. Feijo Dep. Tr.* at 206, l. 18-20; 212, l. 14-24; S.D. Ex. 9 (*J. Feijo Dep. Ex. 9 - Daniel Chapter One Monthly Gross Sales*).

48. There is no indication in the BioMolecular Nutrition Product Catalog that the price listed is for a donation. *J. Feijo Dep. Tr.* at 158, l. 11-17; *P. Feijo Dep. Tr.* at 76, l. 11-17; 77, l. 5-12.

49. There is no mention of the DCO ministry in the BioMolecular Nutrition Product Catalog. *J. Feijo Dep. Tr.* at 161, l. 4-10.

50. Jill Feijo does not recall whether there is anything in writing regarding any alleged "donation policy." *Jill Feijo Dep. Tr.* at 22, l. 25 - 23, l. 1-3.

51. Most consumers pay DCO's alleged "suggested donation" price and "not many" people per day ask Jill Feijo to pay a lowered amount. *Jill Feijo Dep. Tr.* at 23, l. 14-21.

52. On January 3, 2008, FTC investigator Michael Marino ("Marino") purchased the DCO Products from Respondents' Web site. S.D. Ex. 3 (Marino Dec. at ¶ 9-10, Exhibit C).

53. Prior to making the purchase, Marino created an undercover e-mail account to confirm and monitor the progress of the purchase and received four emails from Respondents

relating to the purchase of the DCO Products. S.D. Ex. 3 (Marino Dec. at ¶ 11, Exhibit D).

54. On or about January 24, 2008, Marino received the DCO Products. S.D. Ex. 3 (Marino Dec. at ¶ 12).

55. Included in the shipment of the DCO Products ordered by Marino were the following: (a) BioGuide 3: The BioMolecular Nutrition Guide to Natural Health 3; (b) "BioMolecular Nutrition Product Catalog;" (c) a blank purchase order form; and (d) an invoice form. S.D. Ex. 3 (Marino Dec. at ¶ 12, Exhibits E-H).

56. According to the UPS Ground shipping label attached to the package containing the DCO Products and the DCO materials, the shipment originated from Daniel Chapter One, 822 Anthony Road, Portsmouth Rhode Island 02871-5604 and was sent to an FTC undercover address in a state other than Rhode Island in the United States. S.D. Ex. 3 (Marino Dec. at ¶ 12).

57. Marino inspected the contents of the shipment of the DCO Products and did not observe a separate document indicating that the purchase was a "donation" or thanking the purchaser for making a "donation" to Daniel Chapter One. S.D. Ex. 3 (Marino Dec. at ¶ 13).

58. According to Commission records, the amount charged to the undercover credit card used for the purchase of the DCO Products was $175.75. These records also indicate that this charged was made by "DANIEL CHAPTER ONE." S.D. Ex. 3 (Marino Dec. at ¶ 14).

59. DCO's shipping and handling fees for its products are $20.95. *J. Feijo Dep. Tr.* at 152, l. 22-25 - 153, l. 1-3.

60. DCO offers coupons to consumers for their next online store order. *J. Feijo Dep. Tr.* at 154, l. 2-7.

61. Respondents run promotions from time to time to "give [consumers] more of an opportunity to . . . get things at a lower rate." *J. Feijo Dep. Tr.* at 154, l. 8-24.

62. For example, consumers can buy multiple bottles and get a bottle free. *J. Feijo Dep. Tr.* at 232, l. 16-20.

63. A number of stores nationally sell DCO's products, including stores in Georgia and a store in Pennsylvania. *P. Feijo Dep. Tr.* at 72, l. 16-24.

64. Doctors and stores that carry DCO's product line get the product at a lesser price because they are going to be selling it. *P. Feijo Dep. Tr.* at 71, l. 3-9.

65. Respondents' Cancer Newsletter, entitled How to Fight Cancer is Your Choice!!!, costs $5.95. S.D. Ex. 10 (*DCO's Cancer Newsletter, Millenium [sic] Edition, 2002 - "How to Fight Cancer is Your Choice!!!"* at FTC-DCO 0405).

66. In their Cancer Newsletter, Respondents instruct consumers to call "1-800-504-5511" to order their products. S.D. Ex. 10 (*DCO's Cancer Newsletter, Millenium [sic] Edition, 2002 - "How to Fight Cancer is Your Choice!!!"* at FTC-DCO 0405).

67. In their Cancer Newsletter, entitled How to Fight Cancer is Your Choice!!!, Respondents state that their "[l]atest Bioguide" is "[o]nly $9.95." S.D. Ex. 10 (*DCO's Cancer Newsletter, Millenium [sic] Edition, 2002 - "How to Fight Cancer is Your Choice!!!"* at FTC-DCO 0397).

68. Respondents' publication entitled The Most Simple Guide to the Most Difficult Diseases: The Doctors' How-To Quick Reference Guide costs $12.95. S.D. Ex. 3 (Marino Dec. at ¶ 24, Exhibit N at FTC-DCO 2825).

69. On their Web site dc1store.com, Respondents state: "For Information on Special offers for ***purchasing*** multiple bottles of 7-Herb call 1-800-504-5511 between 9-6 EST Mon-Fri." S.D. Ex. 11 (*Pages from Respondents' Web site dc1store.com listing contact information, dated Mar. 31, 2008,* at FTC-DCO 0084) (emphasis added) .

70. On their Web site dc1store.com, Respondents state the following regarding their affiliate program: "**Welcome to the DC1 Affiliate Program!** Our program is free to join, it's easy to sign-up and requires no technical knowledge. Affiliate programs are common throughout the Internet *and offer website owners a means of profiting from their websites. Affiliates generate sales for commercial websites* and in return receive a percentage of the value of those sales. **How Does It Work?** When you join the DC1 Affiliate Program, you will be supplied with a range of banners and textual links that you place within your site. When a user clicks on one of your links to the DC1 Affiliate Program, their activity will be tracked by our affiliate software. You will earn a commission based on your commission type. **Real-Time Statistics and Reporting!** Login 24 hours a day to check your sales, traffic, account balance and see how your banners are performing. You can even test conversion performance by creating your own custom links! Affiliate Program Details. Pay-Per-Sale: 10% of all sales you deliver. $100.00 USD - Minimum balance required . . . . Payments are made on the 1st of each month, for the previous month." S.D. Ex. 12 (*Pages from Respondents' Web site dc1store.com discussing "DC1 Affiliate Program," dated Dec. 12, 2007* at FTC-DCO 0461 - 0462) (emphasis in bold in original; emphasis in italics supplied) .

71. When discussing the cost of DCO's products generally, Terry Brotherton, a consumer whose testimonial was provided by Respondents in discovery, stated "***[i]t wasn't cheap but it was the best money I ever spent***." S.D. Ex. 13 (*Terry Brotherton Statement produced by Respondents as DCO 0156*) (emphasis added).

72. When discussing the cost of 7 Herb Formula specifically, Charlotte Rice, a consumer whose testimonial was provided by Respondents in discovery, stated, "I then proceeded to reduce my 7 Herb Formula to a maintenance dosage. Tricia & Jim Feijo did not agree with my decision. They felt I should stay on the maximum dosage to be safe, ***but I was having financial problems, and could not afford the cost.***" S.D. Ex. 14 (*Charlotte Rice Statement produced by Respondents as DCO 0170 - 0171* at DCO 0170) (emphasis added).

73. When discussing the cost of 7 Herb Formula, GDU, Bio*Shark, and other DCO products, Earl Davis, a consumer whose testimonial was provided by Respondents in discovery, stated, "***[t]he only drawback that we've experienced is the pricing of the products. There should be discounts for customers who have referred lots of people and for those customers who consume lots of product monthly*** because alternative therapy is expensive. . . ." S.D. Ex. 15 (*Earl Davis Statement produced by Respondents as DCO 0187*) (emphasis added).

74. When discussing the cost of 7 Herb Formula, Ernie Jensen, a consumer whose testimonial was provided by Respondents in discovery, stated "I could not afford the 7 Herb [Formula]." S.D. Ex. 16 (*Ernie Jenson Statement produced by Respondents as DCO 0189 - 0193* at DCO 0189).

75. The trademark symbol appears next to Respondents' term "BioMolecular Nutrition" and Respondents' products 7 Herb Formula, GDU, and BioMixx. S.D. Ex. 6 (*J. Feijo Dep. Ex. 6 - BioMolecular Nutrition Product Catalog* at FTC-DCO 0060 - 0061).

BioShark

76. Bio*Shark is a product that contains, among other ingredients, Shark Cartilage. Answer ¶ 6.

77. Respondents offer one bottle of Bio*Shark for $65.95 (300 of the 800 mg capsules) and $30.95 (100 of the 800 mg capsules). Answer ¶ 6.

78. Respondents pay Universal Nutrition $3.15 per unit for the 100 capsule bottle of Bio*Shark and $8.75 per unit for the 300 capsule bottle of Bio*Shark. Deposition of Claudia Petra Bauhoffer-Kinney, January 15, 2009, (hereinafter referred to as *Kinney Dep. Tr.*) at 44, l. 15-19.

79. During 2008, Respondents paid Universal Nutrition approximately $1,437 to manufacture 479 units of the 100 capsule bottle of Bio*Shark and approximately $6,256 to manufacture 782 units of the 300 capsule bottle of Bio*Shark. *Kinney Dep. Tr.* at 45, l. 3-10.

80. Universal Nutrition does two things - it has its own brand of products, and it also is a private label manufacturer. *Kinney Dep. Tr.* at 17, l. 10-23.

81. DCO falls under the private label part of Universal Nutrition. *Kinney Dep. Tr.* at 17, l. 24-25.

82. Universal Nutrition makes approximately 35-40 products for DCO, including Bio*Shark, GDU, and BioMixx. *Kinney Dep. Tr.* at 21, l. 1-19.

83. Universal Nutrition started manufacturing Bio*Shark for Respondents approximately eight to ten years ago. *Kinney Dep. Tr.* at 42, l. 23-25 - 43, l. 1.

7 Herb Formula

84. 7 Herb Formula is a liquid tea concentrate product that contains, among other ingredients, distilled water, Cat's Claw, Burdock Root, Siberian Ginseng, Sheep Sorrel, Slippery Elm, Watercress, and Turkey Rhubarb Root. Answer ¶ 8.

85. Respondents offer one 32-ounce bottle of 7 Herb Formula for $70.95. Answer ¶ 8.

86. On their Web sites danielchapterone.com and dc1pages.com, Respondents state the following regarding 7 Herb Formula: "I think it costs too much: Essiac formulas normally retail for $45 to $69 per bottle. If you compare that to the cost of a hospital stay and drug treatment, this is cheap! ***Daniel Chapter One's 7 Herb Formula is equally priced with most other brands but with ours you get a great deal more.*** Remember you are not only getting 32 ounces per bottle, when some of the other brands are only 16 ounces; you are also getting 2 more expensive herbs (Cat's Claw and Siberian Ginseng). We use 3 times the herbs and prepare each individually using a double water filtering process. If that is the case you must at least double the price they are asking to get equal price comparison." S.D. Ex. 17 (*Pages from Respondents' Web sites dc1pages.com, dated April 2, 2008, at FTC-DCO 0159 - 0160, and danielchapterone.com, dated November 7, 2008, at FTC-DCO 0495, stating "I think it costs too much"*) (emphasis added).

GDU

87. GDU is a product that contains, among other ingredients, Bromelain, Turmeric, Quercetin, Feverfew, and Boron. Answer ¶ 10.

88. Respondents offer GDU for $45.95 (300 capsules) and $29.95 (120 capsules). Answer ¶ 10.

89. Respondents pay Universal Nutrition $3.28 per unit for the 120 tablet [sic] bottle of GDU and $7.07 per unit for the 300 tablet [sic] bottle of GDU. *Kinney Dep. Tr.* at 34, l. 21-25 - 35, l. 1-4.

90. During 2008, Respondents paid Universal Nutrition approximately $5,127 to manufacture 1,709 units of the 120 tablet [sic] bottle of GDU and approximately $52,661 to manufacture 7,523 units of the 300 tablet [sic] bottle of GDU. *Kinney Dep. Tr.* at 34, l. 5-25 - 35, l. 1-4.

BioMixx

91. BioMixx is a product that contains, among other ingredients, Goldenseal, Echinacea, and Ginseng. Answer ¶ 12.

92. Respondents offer BioMixx for $40.95 (3 lb. powder) and $22.95 (1 lb. powder). Answer ¶ 12.

93. Respondents pay Universal Nutrition $11.50 per unit for the 3 pound bottle of BioMixx. *Kinney Dep. Tr.* at 46, l. 8-16.

94. During 2008, Respondents paid Universal Nutrition approximately $8,778 to manufacture 798 units of the 3 pound bottle of BioMixx. *Kinney Dep. Tr.* at 46, l. 8-16.

C. RESPONDENTS DIRECT CONSUMERS ON HOW TO TAKE THEIR PRODUCTS

95. Respondent James Feijo and his wife, Patricia Feijo, have been solely responsible for creating, drafting, and approving the directions for usage and the recommended usages of the DCO Products. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 16*).

96. There only has been one version of each of the DCO Products, and the information relating to the identity of each ingredient and the amount of each ingredient is contained on the labels for the DCO Products. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 17*).

97. Each Bio*Shark product label directs users to take 2-3 capsules three times a day or as directed by a physician or by a BioMolecular Nutrition health care professional. Answer ¶ 6; S.D. Ex. 18 (*P. Feijo Dep. Ex. 14 - Bio*Shark Labels at FTC-DCO 0065 - 0066, 0122 - 0123*).

98. Respondent James Feijo and his wife developed the suggested dosage for Bio*Shark, and the suggested dosage was based on their "reading and from experience." *P. Feijo Dep. Tr.* at 166, l. 19-25 - 167, l. 1-4.

99. Respondents' product label directs users to take 1-2 ounces of 7 Herb Formula with 2-4 ounces of hot or cold filtered or distilled water. The label further directs users to take 7 Herb Formula twice daily or as directed by a BioMolecular Nutrition Health care

professional. Answer ¶ 8; S.D. Ex. 19 (*P. Feijo Dep. Ex. 15 - 7 Herb Formula Labels at FTC-DCO 0064, 0124*).

100. Respondent James Feijo and his wife developed the suggested dosage for 7 Herb Formula. *P. Feijo Dep. Tr.* at 175, l. 13-16.

101. Respondents' GDU product label directs users to take 3-6 capsules 2 to 4 times per day or as directed by a physician or by a BioMolecular Nutrition health care professional. Answer ¶ 10; S.D. Ex. 20 (*P. Feijo Dep. Ex. 16 - GDU Caps Labels at FTC-DCO 0125 - 0126, 0067 - 0068*).

102. Respondent James Feijo and his wife developed the suggested dosage for GDU. *P. Feijo Dep. Tr.* at 192, l. 20-23.

103. Respondents' product label for BioMixx directs users to take five scoops daily. Answer ¶ 12; S.D. Ex. 21 (*P. Feijo Dep. Ex. 17 - BioMixx Labels at FTC-DCO 0127 - 0128*).

D. RESPONDENTS CLAIM THAT THEIR PRODUCTS CURE, MITIGATE, TREAT, OR PREVENT CANCER OR TUMORS.

104. DCO's Web site depicts pictures of the DCO Products next to the statement "Daniel Chapter One's Cancer Solutions." *P. Feijo Dep. Tr.* at 176, l. 20-25 - 177, l. 1-19; S.D. Ex. 7 (*J. Feijo Dep. Ex. 4 - Exhibits A - D to Administrative Complaint* at FTC-DCO 0014); S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 2*).

105. On their Web site dc1pages.com, Respondents publish information about the DCO Products, including, but not limited to, the following:

Supporting Products

To enhance 7 Herb Formula's healing quantities Daniel Chapter One advises [sic] to get familiar with the supporting products below:

CANCER
TREATMENT:

7Herb Formula
Bio*Shark
BioMixx
GDU Caps

also

Ezekiel Oil
topically

S.D. Ex. 22 (*Pages from Respondents' Web site dc1pages.com regarding "Supporting Products," dated April 2, 2008 at FTC-DCO 0190*).

106. In DCO's The Most Simple Guide to the Most Difficult Diseases: The Doctors' How-To Quick Reference Guide, DCO recommends the following products for cancer:

CANCER

All types of Cancer

7*Herb Formula ™
2 ounces in juice or water
(minimum intake)
2 times daily

Bio*Shark ™**(for tumors only)**
2 - 4 capsules
3 times daily with meals

BioMixx ™ (Boosts immune system)
4 - 5 scoops in soy milk
2 times daily

GDU Caps ™
3 - 6 capsules
3 times daily; ½ hr.
BEFORE meals

S.D. Ex. 3 (M. Marino Dec. at ¶ 24, Exhibit N at FTC-DCO 2739).

107. Through the "Testimonies" tab on the danielchapterone.com Web site, Respondents provide the following titles for testimonials from their customers, who claim that DCO's Products were effective in the cure, mitigation, treatment, or prevention of cancer or tumors:

Cancer, Bladder (Drew Dellinger)
Cancer, Breast Mass (Deloris Winter)
Cancer, Cancerous Lung Tumor (Douglas Meeks)
Cancer, Cancerous Tumor (Joe Rocha)
Cancer, Leukemia, Brain Tumor (Tracey Kulikowski)
Cancer, Prostate (Jim Givens)
Cancer, Prostate Cancer (Joe)
Special Forces Officer Overcomes Prostate Cancer

Cancer, Prostate (Sherman "Red" Smith)
Cancer, Renal Cell (Jim Hatfield)
Cancer, Skin (Pastor Wayne Harms)
Cancer, Stage 4 (Joseph Jungles)

S.D. Ex. 23 (*Testimonials from Respondents' Web site at FTC-DCO 0100 - 0119*).

108. In Respondents' BioGuide: The BioMolecular Nutrition Guide to Natural Health 3, Respondents published the following testimonial from Tracey Kulikowski that states: "I had contracted leukemia and had three inoperable tumors. When I decided not to do chemotherapy or radiation, my father sent me ***BIOMIXX*** and ***7 HERB FORMULA***. Each day as I took it and got it into my system more and more, the better I felt. Then I added Garlic, Siberian Ginseng, and **Bio*Shark**. I am now in complete remission. The cancer cell count has dropped, the doctors tell me. I had a tumor just above the brain stem in my brain that has completely disappeared. The tumor on my liver is shrinking and the tumor behind my heart has shrunk over 50%. . . . There are alternatives besides chemo and radiation!" S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3 at FTC-DCO 0353*)(emphasis in bold added).

109. Respondent James Feijo was responsible for putting together BioGuide 3. *J. Feijo Dep. Tr.* at 243, l. 12-21.

110. Patricia Feijo was responsible for writing the BioGuide. *P. Feijo Dep. Tr.* at 20, l. 15-25.

111. Bio*Shark, 7 Herb Formula, GDU, and BioMixx all appear in Respondents' Cancer Newsletter, entitled How to Fight Cancer is Your Choice!!!. S.D. Ex. 10 (*DCO's Cancer Newsletter, Millenium [sic] Edition, 2002 - "How to Fight Cancer is Your Choice!!! at FTC-DCO 0390 - 405*).

112. The Cancer Newsletter is "strictly all about the products for cancer." *J. Feijo Dep. Tr.* at 143, l. 17-22.

113. Patricia Feijo was responsible for writing the Cancer Newsletter. *P. Feijo Dep. Tr.* at 26, l. 23-25 - 27, l. 1-19; 28, l. 5-10.

114. James and Patricia Feijo are not doctors. *P. Feijo Dep. Tr.* at 114, l. 15-16.

115. James Feijo never held a position where he had to use any skills involving medicine. *J. Feijo Dep. Tr.* at 47, l. 12-17.

116. James and Patricia Feijo are not research scientists. *P. Feijo Dep. Tr.* at 114, l. 16.

117. During the July 8, 2008 DCO Healthwatch radio program, James Feijo stated that "the FTC, the FDA, the Canadian Government don't like the fact that we've told people about

what to do about natural methods of health and healing, especially cancer." S.D. Ex. 3 (Marino Dec. at ¶ 22, Exhibit J at 7, l. 16-19 (FTC-DCO 0506)).

118. During the July 14, 2008 DCO Healthwatch radio program, Patricia Feijo stated the following: "And while the FTC does not want us saying that anything natural can be used to treat cancer and that nothing certainly can cure cancer, we know that the truth is different than what they want us to say. The truth is God has given us herbs in His creation and nutrients that can heal cancer, even cure cancer." S.D. Ex. 3 (Marino Dec. at ¶ 22, Exhibit K at 4, l. 17-23 (FTC-DCO 0612)).

BioShark

119. Respondents publish information about Bio*Shark, including, but not limited to, the following:

PRODUCTS
Bio*Shark: Tumors & Cysts
Pure skeletal tissue of sharks which provides a protein that inhibits angiogenesis - the formation of new blood vessels. This can stop tumor growth, and halt the progression of eye diseases such as diabetic retinopathy and macular degeneration. . .

Answer ¶ 7; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 1*); *see also J. Feijo Dep. Tr.* at 61, l. 11-14; 100, l. 24-25 - 101, l. 1; 107, l. 15-18; *P. Feijo Dep. Tr.* at 156, l. 14-25 - 157, l. 1-7.

120. Respondents publish information about Bio*Shark, including, but not limited to the following:

If you suffer from any type of cancer, Daniel Chapter One suggests taking this products [sic], to fight it: [emphasis added]
7*Herb Formula ™. . .
Bio*Shark ™. . . [emphasis added]
BioMixx ™. . .
GDU Caps ™. . .
[depiction of bottles of BioMixx, 7 Herb Formula, Bio*Shark, and GDU]
Daniel Chapter One's Cancer solutions
To Buy the products click here
How to fight cancer is your choice!. . . [emphasis added]

Answer ¶ 9; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 2*); *see also J. Feijo Dep. Tr.* at 61, l. 11-14; 100, l. 24-25 - 101, l.1; 110, l. 23-25 - 111, l. 13-20.

121. In their BioMolecular Nutrition Product Catalog, next to the pictures of the BioShark bottles, Respondents state that "Shark Cartilage protein inhibits angiogenesis, stops tumor growth, and halts eye disease." S.D. Ex. 6 (*J. Feijo Dep. Ex. 6 - BioMolecular Nutrition Product Catalog* at FTC-DCO 0061).

122. On a prior Daniel Chapter One Web site, Respondents stated "**Bio*Shark Shark Cartilage** Stops tumor growth in its tracks." S.D. Ex. 24 (*Respondents' "Web Pages from prior Daniel Chapter One Web sites" at FTC-DCO 2032*) (emphasis in original).

7 Herb Formula

123. 7 Herb Formula is a product that can be used by a person who is suffering from cancer. *P. Feijo Dep. Tr.* at 171, l. 4-8.

124. Respondents publish information about 7 Herb Formula, including, but not limited to, the following:

INFO CENTER
Cancer News.
7 Herb Formula
- purifies the blood
- promotes cell repair
- **fights tumor formation** [emphasis in original]
- fights pathogenic bacteria

. . .

If you suffer from any type of cancer, Daniel Chapter One suggests taking this products [sic], to fight it: [emphasis added]
7*Herb Formula ™. . . [emphasis added]
Bio*Shark ™. . .
BioMixx ™. . .
GDU Caps ™. . .
[depiction of bottles of BioMixx, 7 Herb Formula, Bio*Shark, and GDU]
Daniel Chapter One's Cancer solutions
To Buy the products click here
How to fight cancer is your choice!. . . [emphasis added]

Answer ¶ 9; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 2*); *see also J. Feijo Dep. Tr.* at 60, l. 17-22; 101, l. 2-6; 110, l. 23-25; 111, l. 13-20.

125. Respondents publish information about 7 Herb Formula, including, but not limited to, the following:

7 Herb Formula battles cancer.
Tracey was given no hope!
The doctors had pretty much given up on Tracey. She had leukemia and tumors on the brain, behind the heart and on her liver. . .
This is Tracey's story in her own words as told in 1997: 'I had contracted leukemia and had three inoperable tumors. When I decided not to do chemotherapy or radiation, my father sent me Bio*Mixx and 7 Herb Formula. Each day as I took it and got it into my system more and more, the better I felt. Then I added Garlic Pur, Siberian Ginseng and BioShark." "I am now in complete remission. . .'

Answer ¶ 9; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 2*); *see also J. Feijo Dep. Tr.* at 60, l. 17-22; 101, l. 2-6; 110, l. 23-25; 111, l. 13-20.

126. In their BioMolecular Nutrition Product Catalog, next to the picture of the 7 Herb Formula bottle, Respondents state that the herbs in 7 Herb Formula "purify the blood and promote cell repair, clear skin, cleanse the liver, decrease cell mutation, fight pathogenic bacteria and ***tumor formation***." S.D. Ex. 6 (*J. Feijo Dep. Ex. 6 - BioMolecular Nutrition Product Catalog* at FTC-DCO 0061) (emphasis added).

127. In Respondents' BioGuide: The BioMolecular Nutrition Guide to Natural Health 3, Respondents published the following testimonial from Buzz McKay: "I had beam radiation for ***prostate cancer***. I also took 7 Herb Formula, 6 ounces a day, and BioMixx; I never had a bad day, never felt sick. When my PSA went from 7.6 to 0.5 in the month after I finished radiation, my doctor was surprised. Several months later, it was down to 0.16! 7 Herb Formula is extremely well done - fantastic. I still take 2 ounces of *7* ***Herb Formula*** every morning; I plan to stay on that forever! ***I figure 6 ounces (2 morning, 2 afternoon, 2 evening) did such a good job fighting cancer***, 2 ounces is a good prophylaxis!" S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3* at FTC-DCO 0330) (emphasis added).

128. On their Web sites danielchapterone.com and dc1pages.com, Respondents publish information about 7 Herb Formula, including, but not limited to, the following: "With Jim Feijo's addition to the [7 Herb] formula, we now have the most effective and potent formula available in the battle against tumors." S.D. Ex. 25 (*Pages from Respondents' Web sites dc1pages.com, dated April 2, 2008, at FTC-DCO 0142, and danielchapterone.com, dated November 7, 2008, at FTC-DCO 0493, regarding "I want the Original Essiac Formula, not some knock off brand"*).

129. On their Web site dc1pages.com, Respondents publish information about 7 Herb Formula, including, but not limited to, the following: "The 7 Herb Formula has been used by patients involved in clinical studies in cancer clinics and sold in doctor's offices around the country." S.D. Ex. 26 (*Pages from Respondents' Web site dc1pages.com regarding "I use Brand X," dated April 2, 2008, at FTC-DCO 0157*).

130. During the July 8, 2008 DCO Healthwatch radio program, James Feijo stated the following: "Here's a testimony from Pastor Wayne Hamm, Henderson, Nevada. He had the Gulf War illness. He was told that he needed surgery and radiation treatment for his cancer, that he developed skin cancer because of the Gulf War, he was exposed out there. He didn't take it. He decided to use Daniel Chapter One 7 Herb Formula, internally and topically. He also used Ezekiel Oil topically, BioShark and GDU. My skin cleared up after a few months in the late 1980s, early '99, I was told there was no trace of cancer. The FDA does not want us to let you know about this." S.D. Ex. 3 (Marino Dec. at ¶ 22, Exhibit J at 104, l. 13-24 (FTC-DCO 0603)).

131. During the July 14, 2008 DCO Healthwatch radio program, Patricia Feijo stated that 7 Herb Formula is "great for cancer." S.D. Ex. 3 (Marino Dec. at ¶ 22, Exhibit K at 83, l. 8-13 (FTC-DCO 0691)).

GDU

132. Respondents publish information about GDU, including, but not limited to, the following:

PRODUCTS
. . .
Contains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein - even that of unwanted **tumors** and cysts. This formula also helps to relieve pain and heal inflammation. . . .and as an adjunct to **cancer** therapy. [emphasis added]

Answer ¶ 11; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 3*); *see also J. Feijo Dep. Tr.* at 101, l. 7-9; 138 l. 22-25 - 139, l. 1-2; *P. Feijo Dep. Tr.* at 185, l. 24-25 - 186, l. 1-16.

133. Respondents publish information about GDU, including, but not limited to, the following:

If you suffer from any type of cancer, Daniel Chapter One suggests taking this products [sic], to fight it: [emphasis added]
7*Herb Formula ™. . .
Bio*Shark ™. . .
BioMixx ™. . .
GDU Caps ™. . . [emphasis added]
[depiction of bottles of BioMixx, 7 Herb Formula, Bio*Shark, and GDU]
Daniel Chapter One's Cancer solutions
To Buy the products click here
How to fight cancer is your choice!. . . [emphasis added]

Answer ¶ 9; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 2*); *see also J. Feijo Dep. Tr.* at 101, l. 7-9; 110, l. 23-25; 111, l. 13-20.

134. In their BioMolecular Nutrition Product Catalog, next to the pictures of the GDU bottles, Respondents state that GDU "[c]ontains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein, ***even that of unwanted tumors*** and cysts. Helps to relieve pain, inflammation, and as ***an adjunct to cancer therapy***." S.D. Ex. 6 (*J. Feijo Dep. Ex. 6 - BioMolecular Nutrition Product Catalog* at FTC-DCO 0062)(emphasis added).

135. In Respondents' BioGuide: The BioMolecular Nutrition Guide to Natural Health 3, Respondents published the following testimonial from Deloris Winter: "I went in for a breast examination by mammography. On 10/8/01 they said they found a mass that they believed was not cancerous, but benign. I began taking GDU six times a day: 2 before breakfast, 2 before lunch, and 2 before dinner, and in a month I went to my doctor for the breast examination, and he found nothing on either breast." S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3* at FTC-DCO 0331); *see also P. Feijo Dep. Tr.* at 190, l. 5-19.

136. During the July 14, 2008 DCO Healthwatch radio program, Patricia Feijo advised a consumer whose father was diagnosed with colon cancer that she should get her father "on . . . GDU, BioShark and 7 Herb Formula. And if you can get him to, you know, go right now to the website, How To Fight Cancer Is Your Choice, or you can get him a hard copy from our order center, while we have them. It's what the FTC wants to shut us down over and they certainly want us to, you know, crash the website and they want to, you know, burn our material. They don't want us circulating How To Fight Cancer Is Your Choice." S.D. Ex. 3 (Marino Dec. at ¶ 22, Exhibit K at 85, l. 13-25 - 86, l. 1-25 (FTC-DCO 0693 - 0694)).

BioMixx

137. Respondents publish information about BioMixx, including, but not limited to, the following:

Bio*Mixx boosts the immune system, cleanses the blood and feeds the endocrine system to allow for natural healing. It is used to assist the body in **fighting cancer** and in healing the destructive effects of **radiation** and **chemotherapy** treatments. [emphasis added]

Answer ¶ 13; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 4*); *see also J. Feijo Dep. Tr.* at 101, l. 10-11.

138. Respondents publish information about BioMixx, including, but not limited to the following:

> **If you suffer from any type of cancer**, Daniel Chapter One suggests taking this products [sic], to fight it: [emphasis added]
> 7*Herb Formula ™. . .
> Bio*Shark ™. . .
> **BioMixx ™. . .** [emphasis added]
> GDU Caps ™. . .
> [depiction of bottles of BioMixx, 7 Herb Formula, Bio*Shark, and GDU]
> Daniel Chapter One's Cancer solutions
> To Buy the products click here
> **How to fight cancer is your choice!**. . . [emphasis added]

Answer ¶ 9; S.D. Ex. 8 (*Respondents' Responses and Objections to Complaint Counsel's Request for Admissions, Respondents' Answer to Complaint Counsel's Req. for Admis. Regarding Authenticity and Admissibility ¶ 2*); *see also J. Feijo Dep. Tr.* at 101, l. 10-11; 110, l. 23-25; 111, l. 13-20.

139. In Respondents' BioGuide: The BioMolecular Nutrition Guide to Natural Health 3, Respondents state the following regarding BioMixx: "What separates BioMixx is that it was developed specifically to maximize the immune system, particularly for those individuals whose immune systems were compromised through chemotherapy and radiation." S.D. Ex. 5 (*J. Feijo Dep. Ex. 12 - BioGuide: The BioMolecular Nutrition Guide to Natural Health 3* at FTC-DCO 0334).

140. In their Cancer Newsletter, entitled How To Fight Cancer is Your Choice!!!, Respondents state that BioMixx "is used to assist the body in **fighting cancer** and in healing the destructive effects of **radiation** and **chemotherapy** treatments." S.D. Ex. 10 (*DCO's Cancer Newsletter, Millenium [sic] Edition, 2002 - "How to Fight Cancer is Your Choice!!!"* at FTC-DCO 0400) (emphasis added).

E. RESPONDENTS DISSEMINATE CLAIMS ABOUT THEIR PRODUCTS TO CONSUMERS

141. Respondents operate the Web sites www.danielchapterone.com, dc1pages.com, and dcstore.com that provide information on the DCO Products. Answer ¶ 5; *J. Feijo Dep. Tr.* at 62, l. 10-13; *see also J. Feijo Dep. Tr.* at 232, l. 21-25 - 233, l. 1-19.

142. Respondents disseminate information about the DCO Products through written materials, including, but not limited to, the BioGuide, the Cancer Newsletter, the websites www.danielchapterone.com, www.7herbformula.com, www.gdu2000.com, and the radio program, "Daniel Chapter One Health Watch." S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 11*); *see also J. Feijo Dep. Tr.* at 103, l. 19-21.

143. Respondent James Feijo and his wife, Patricia Feijo, are responsible for the information contained in the written materials, including the BioGuide, the Cancer Newsletter, the websites www.danielchapterone.com, www.7herbformula.com, www.gdu2000.com, and the radio program, "Daniel Chapter One Health Watch," that describe the DCO Products. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 12*); *J. Feijo Dep. Tr.* at 62, l. 10-13.

144. Consumers can locate Respondents' Web site by entering the term "cancer" in a Google search. *J. Feijo Dep. Tr.* at 136, l. 12-17.

145. FTC Investigator Michael Marino found and accessed DCO's Web site www.danielchapterone.com through Microsoft Internet Explorer. S.D. Ex. 3 (Marino Dec. at ¶ 3).

146. Respondent James Feijo and his wife, Patricia Feijo, co-host the Daniel Chapter One radio program for two hours a day, Monday through Friday. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 5*); *J. Feijo Dep. Tr.* at 16, l. 25 - 17, l. 4.

147. Respondents have counseled cancer patients who have called into the Daniel Chapter One radio program about taking the DCO Products. *P. Feijo Dep. Tr.* at 96, l. 10-25 - 97, l. 1-8.

148. The DCO radio program and the DCO Web site were the natural vehicle for Respondents to reach out to people in other states. *P. Feijo Dep. Tr.* at 62, l. 3-8.

F. RESPONDENTS DID NOT POSSESS SUBSTANTIATION FOR SUCH CLAIMS AT THE TIME THEY WERE MADE.

149. Respondents conducted no scientific testing on any of the DCO Products. *P. Feijo Dep. Tr.* at 161, l. 12-16; *see also J. Feijo Dep. Tr.* at 201, l. 22-25 - 201, l. 1-3.

150. Respondents have not conducted any double-blind studies on the DCO Products. *J. Feijo Dep. Tr.* at 58, l. 17-22; *see also J. Feijo Dep. Tr.* at 205, l. 25 - 206, l. 1-10.

151. Respondents' have not conducted any controlled studies on any of the DCO Products. *J. Feijo Dep. Tr.* at 54, l. 23-25; 55, l. 11.

152. No person has been involved in the scientific testing, research, substantiation, or clinical trials of the DCO Products. S.D. Ex. 4 (*J. Feijo Dep. Ex. 7 - Respondents' Responses to Complaint Counsel's First Set of Interrogs., Resp. to Interrog. No. 15*).

153. Respondents have no documents relating to their policies, procedures, or requirements for evaluating or reviewing each safety, efficacy, or bioavailability representation made

for the DCO Products. S.D. Ex. 27 (*Respondents' Responses to Complaint Counsel's First Req. For Produc. of Documentary Materials and Tangible Things, Resp. to Req. No. 6*).

154. It was not Respondents' practice to obtain scientific studies about any of the components in their products. *P. Feijo Dep. Tr.* at 120, l. 9-19.

155. Respondents did not search for scientific studies regarding the components in their products because "[w]e're working with people, and again, it's experiential and it's working with the whole person." *P. Feijo Dep. Tr.* at 120, l. 20-22.

156. James Feijo agrees that individual results may vary and that what one person says in her testimonial may not apply to other people. *J. Feijo Dep. Tr.* at 141, l. 19-25 - 142, l. 1-8.

157. According to Patricia Feijo, "only God can cure cancer." *P. Feijo Dep. Tr.* at 115, l. 19-20.

158. According to Patricia Feijo, "We [James and Patricia Feijo] do have knowledge that is experiential. We have seen how these products work. God has shown us [James and Patricia Feijo] and given us a wealth of knowledge and information that - - and we felt it is very truthful and actually our duty to share with people." *P. Feijo Dep. Tr.* at 116, l. 12-26.

BioShark

159. Respondents conducted no scientific testing on Bio*Shark. *P. Feijo Dep. Tr.* at 161, l. 12-16.

160. Respondents' substantiation for the statement that "[p]ure skeletal tissue of sharks . . . can stop tumor growth" is "from the material that [they] had read that shark cartilage provides a protein that inhibits angiogenesis and the information [they] have that [they] have . . . read and complied for many years now." *P. Feijo Dep. Tr.* at 157, l. 16-20.

161. Patricia Feijo is not aware of any other studies that might have been done on Bio*Shark or shark cartilage other than Dr. Lane's studies. *P. Feijo Dep. Tr.* at 162, l. 5-16.

162. Universal Nutrition did not conduct any testing, quality or otherwise, on Bio*Shark. *Kinney Dep. Tr.* at 45, l. 19-25 - 46, l. 1.

7 Herb Formula

163. Respondents never had an outside lab study the components of 7 Herb Formula to see whether its components actually have the effect that Respondents believe it has. *P. Feijo Dep. Tr.* at 132, l. 11-15.

164. Rather than having an outside lab study the components of 7 Herb Formula to determine whether its components were actually having the effect Respondents believe, Respondents have "experiential information [and] many testimonies, many hundreds if not thousands of testimonies." *P. Feijo Dep. Tr.* at 132, l. 16-18.

165. Respondents' basis for asserting that using 7 Herb Formula will help someone with any type of cancer is "their knowledge about the structure/function of the separate ingredients and the history of the herbal formally, so experientially . . . [they] can say generally that if you suffer from any type of cancer that [Respondents] suggest taking [7 Herb Formula]." *P. Feijo Dep. Tr.* at 175, l. 23-25 - 176, l. 1-7.

GDU

166. GDU was never subjected to clinical trials. *P. Feijo Dep. Tr.* at 190, l. 20-21.

167. Respondents have not done any studies to know whether GDU would counteract with any conventional cancer medicine someone was taking. *P. Feijo Dep. Tr.* at 194, l. 11-14.

BioMixx

168. Respondents did not conduct any tests or clinical studies on BioMixx. *P. Feijo Dep. Tr.* at 199, l. 15-18.

169. Respondents did not engage anybody else to do any kind of clinical tests on BioMixx. *P. Feijo Dep. Tr.* at 199, l. 19-21.

170. Respondents' basis for asserting that BioMixx fights cancer is "[b]ased on the structure of the ingredients, what we know that to be, and based on the function of those ingredients, what we know that to be, and based on the experiential evidence, the witness of many." *P. Feijo Dep. Tr.* at 199, l. 22-25 - 200, l. 1-4.

171. Universal Nutrition has not conducted any testing on BioMixx. *Kinney Dep. Tr.* at 50, l. 8-9.

G. DR. MILLER CONFIRMS THAT THERE IS NO COMPETENT AND RELIABLE SCIENTIFIC EVIDENCE TO SUBSTANTIATE THE CLAIMS THAT DCO'S PRODUCTS TREAT, CURE, OR PREVENT CANCER

Introduction

172. Denis R. Miller, M.D. is a board-certified pediatric hematologist/oncologist. S.D. Ex. 1 (Declaration of Complaint Counsel's Expert Denis R. Miller, M.D., dated February 18, 2009, attaching Denis R. Miller, M.D. Expert Report (hereinafter referred to as *D. Miller Expert Report*) at 1).

173. For over 40 years, Dr. Miller has directed clinical care, education, laboratory and clinical research, and administration, heading divisions or departments at University of Rochester Medical Center, New York Hospital-Cornell Medical Center, Memorial Sloan Kettering Cancer Center, and Northwestern University Medical School. S.D. Ex. 1 (*D. Miller Expert Report* at 1).

174. Dr. Miller also has served as Associate Medical Director of Cancer Treatment Centers of America ("CTCA") as well as Scientific Director of CTCA's Cancer Treatment Research Foundations. S.D. Ex. 1 (*D. Miller Expert Report* at 1).

175. As Scientific Director, Dr. Miller supervised the clinical research program and was principal investigator for a number of Phase I/II clinical studies involving treatments for hematological malignancies and cancers of the head and neck, lung, breast, pancreas, and colon. S.D. Ex. 1 (*D. Miller Expert Report* at 1-2).

176. Dr. Miller has authored or co-authored over 300 book chapters, peer-reviewed articles, and abstracts, and has served on the editorial boards of the British Journal of Hematology and the American Journal of Clinical Oncology. S.D. Ex. 1 (*D. Miller Expert Report* at 3).

177. Dr. Miller currently is the Oncology/Hematology Therapeutic Area Leader at PAREXEL International, a leading contract research organization, where he manages clinical trials for the pharmaceutical industry. S.D. Ex. 1 (*D. Miller Expert Report* at 2).

178. To constitute competent and reliable scientific evidence, a product that purports to treat, cure, or prevent cancer must have its efficacy and safety demonstrated through controlled clinical studies. S.D. Ex. 1 (*D. Miller Expert Report* at 7).

179. Only data from well-designed, controlled, clinical trials will substantiate claims that a new therapy is safe and effective to treat, cure, or prevent cancer. S.D. Ex. 1 (*D. Miller Expert Report* at 30).

180. Anecdotal reports of product efficacy are the weakest form of evidence supporting the anticancer activity of a new agent. S.D. Ex. 1 (*D. Miller Expert Report* at 12).

181. Testimonials do not substitute for a well-designed clinical trial in proving the efficacy of a supposed cancer fighting product. S.D. Ex. 1 (*D. Miller Expert Report* at 30).

182. Dr. Miller's thorough review of peer-reviewed literature and all of the documents produced by DCO indicates that there is no competent and reliable scientific evidence that the DCO Products are effective either alone or in combination with other DCO products in the treatment or cure of cancer, in inhibiting tumor formation, and in preventing the destructive effects of radiation and chemotherapy. S.D. Ex. 1 (*D. Miller Expert Report* at 31).

Bio*Shark

183. Dr. Miller's review of the peer-reviewed literature and all of the documents Respondents submitted as substantiation indicates that there was no competent and reliable scientific evidence that Bio*Shark inhibits tumor growth in humans or that it is effective in the treatment of cancer in humans. S.D. Ex. 1 (*D. Miller Expert Report* at 13).

184. Dr. Miller found that there were no adequate and well-controlled studies demonstrating that Bio*Shark is antiangiogenic or is effective in the treatment of cancer, and even supporting non-clinical studies of crude or partially-purified shark cartilage products were extremely limited, particularly with regard to mechanisms of action, pharmacokinetics, pharmacodynamics, and dose response. S.D. Ex. 1 (*D. Miller Expert Report* at 17).

185. Dr. Miller observed that Respondents' reliance on Dr. I. William Lane's book, "Sharks Don't Get Cancer" was misplaced, as studies at Johns Hopkins University indicate that sharks do indeed get cancer. S.D. Ex. 1 (*D. Miller Expert Report* at 16).

7 Herb Formula

186. Dr. Miller's review of the peer-reviewed literature and all of the documents Respondents submitted as substantiation indicates that there was no competent and reliable scientific evidence that 7 Herb Formula inhibits tumor formation and is effective in the treatment or cure of cancer in humans. S.D. Ex. 1 (*D. Miller Expert Report* at 18).

187. Dr. Miller found neither non-clinical nor clinical studies supporting claims that 7 Herb Formula or any of its individual ingredients are effective anticancer agents or inhibit tumor formation. S.D. Ex. 1 (*D. Miller Expert Report* at 19).

188. Any relevant studies on the ingredients Burdock root, Cat's Claw, sheep sorrel, slippery elm bark, turkish rhubarb root, Siberian ginseng, and watercress were performed either in vitro or on animals, not on humans with cancer. S.D. Ex. 1 (*D. Miller Expert Report* at 19-22).

GDU

189. Dr. Miller's review of the peer-reviewed literature and all of the documents Respondents submitted as substantiation indicates that there was no competent and reliable scientific evidence that GDU eliminates tumors and is effective in the treatment of cancer in humans. S.D. Ex. 1 (*D. Miller Expert Report* at 22).

190. Dr. Miller found no randomized, controlled clinical trials of any of the individual components of GDU or of GDU itself in patients with cancer. S.D. Ex. 1 (*D. Miller Expert Report* at 27).

191. Dr. Miller, however, did note that curcumin (tumeric), one of GDU's ingredients, is currently being evaluated in controlled clinical trials to determine its potential as a chemoprotective and cancer preventive agent. S.D. Ex. 1 (*D. Miller Expert Report* at 22).

192. Animal studies have suggested that curcumin may have activity as a cancer preventive and therapeutic agent. S.D. Ex. 1 (*D. Miller Expert Report* at 23).

193. Nevertheless, Dr. Miller cautioned that some studies have suggested that curcumin may actually inhibit the anticancer activity of some approved anticancer agents as well as exacerbate iron deficiency. S.D. Ex. 1 (*D. Miller Expert Report* at 27).

194. Thus, Dr. Miller advised that further research on curcumin was necessary. S.D. Ex. 1 (*D. Miller Expert Report* at 27).

BioMixx

195. Dr. Miller's review of the peer-reviewed literature and all of the documents Respondents submitted as substantiation indicates that there was no competent and reliable scientific evidence that BioMixx is effective in the treatment of cancer and heals the destructive effects of radiation and chemotherapy. S.D. Ex. 1 (*D. Miller Expert Report* at 27).

196. Dr. Miller found that there are no reported studies of either BioMixx or its constituent ingredients being effective in the treatment of cancer. S.D. Ex. 1 (*D. Miller Expert Report* at 27-28).

197. Dr. Miller also found "absolutely no data" to support the claim that BioMixx is used to heal the destructive effects of radiation and chemotherapy treatments. S.D. Ex. 1 (*D. Miller Expert Report* at 29).

H. RESPONDENTS' EXPERTS DO NOT POSSESS ANY INFORMATION SUBSTANTIATING RESPONDENTS' CLAIMS

Introduction

James Duke, Ph.D.

198. James Duke, Ph.D. ("Duke") has never met Jim and Patricia Feijo. Deposition of James Duke, Ph.D. (hereinafter referred to as *Duke Dep. Tr.*) at 8, l. 6-9.

199. Duke is not a medical doctor. *Duke Dep. Tr.* at 56, l. 3-5.

200. Duke is not licensed to practice medicine in any state. *Duke Dep. Tr.* at 56, l. 6-8.

201. Duke is not a board-certified oncologist. *Duke Dep. Tr.* at 56, l. 9-10.

202. Duke does not recall ever publishing any articles in any peer-reviewed medical journals. *Duke Dep. Tr.* at 56, l. 11-14.

203. Duke has never practiced medicine. *Duke Dep. Tr.* at 18, l. 8.

204. Duke would not recommend that people self-medicate with herbal remedies in treating cancer. *Duke Dep. Tr.* at 135, l. 17-22.

205. Duke is sure that there is a risk that some people will pursue herbal medications instead of effective pharmaceutical medications and thereby die. *Duke Dep. Tr.* at 136, l. 20-23.

206. Duke does not recall any holistic physicians who have consulted with him on the treatment of cancer. *Duke Dep. Tr.* at 19, l. 10-13.

207. Duke does not recall any homeopaths who have consulted with him on the treatment of cancer. *Duke Dep. Tr.* at 19, l. 14-17.

208. Duke has never managed or participated in any studies to measure the efficacy of an herb in treating cancer. *Duke Dep. Tr.* at 29, l. 15-22.

209. Duke does not remember ever being a consultant on a study where the anticancer effects of an herb were being measured on a group of patients. *Duke Dep. Tr.* at 29, l. 23-25 - 30, l. 1-2.

210. Duke does not remember seeing the FTC's Complaint against Respondents. *Duke Dep. Tr.* at 36, l. 19-22.

211. Duke has no knowledge of any of the advertisements that the FTC has challenged as the predicate for the Complaint. *Duke Dep. Tr.* at 36, l. 23-25 - 37, l. 1-2.

212. Duke was not sent any of Respondents' products. *Duke Dep. Tr.* at 37, l. 3-5.

213. Duke has not spoken to any persons who have taken DCO products for the treatment of cancer. *Duke Dep. Tr.* at 38, l. 23-25.

214. Duke has not reviewed the medical records of anyone who claims to have taken DCO products for the treatment of cancer. *Duke Dep. Tr.* at 39, l. 1-4.

215. Duke had never heard of DCO until this case. *Duke Dep. Tr.* at 39, l. 9-10.

216. Duke has never listened to the DCO Radio program. *Duke Dep. Tr.* at 39, l. 11-14.

217. Duke knows of no tests where the patient prays and one group of patients gets a Biblically referenced herb and the other group of patient prays and gets an allopathic treatment. *Duke Dep. Tr.* at 41, l. 20-25 - 42, l. 1-2.

218. Duke does not think that "the FDA permits advertising for cancer unless clinically proven." *Duke Dep. Tr.* at 46, l. 19-22.

219. Duke's "Multiple Activity Menus" ("MAMs") are an attempt to identify herbs that show promise in fighting disease. *Duke Dep. Tr.* at 91, l. 20-23.

220. The MAM and the ratio that it yields does not prove that any one of these herbs is effective in fighting or treating cancer. Rather, "[i]t adds a listing of the chemicals in that herb that have been shown or assumed to help with cancer." *Duke Dep. Tr.* at 92, l. 5-11.

221. When entering in the MAM an activity for an herb, Duke only enters references to that source "as it may be a good source [or] it may be a bad source." *Duke Dep. Tr.* at 93, l. 8-13.

222. Duke acknowledged that it is a "gut feeling" on how he makes sure that the studies he references in the MAMs are reliable. *Duke Dep. Tr.* at 108, l. 17-21.

223. Duke acknowledged that his MAMs have not been cited in any peer-reviewed journal. *Duke Dep. Tr.* at 113, l. 2-4.

224. Duke explained that his Indication Evaluations ("IE") is where he has "gone through all these abstracts over the years [and] I've scored for a given indication. If it's folklore and that's all I have, it would receive an 'f'; if it has a chemical or an epidemiological or an animal or an in vitro evidence, I've given it a 1; and then the 2, as we mentioned earlier, that means it's either been clinically approved - - an extract of the plant has been clinically approved or it's been approved by the Commission E or the Tramil Commission for that indication. These are lines of evidence that point to me which ones are most important and should be studied for cancer." *Duke Dep. Tr.* at 59, l. 7-21; 118, l. 10-13; 119, l. 7-9.

225. The IE is a "compendium of information." *Duke Dep. Tr.* at 109, l. 8-10.

226. There is no relationship between the MAMs and the IE. *Duke Dep. Tr.* at 92, l. 12-20.

227. Neither the MAMs nor the IE reflect information that indicates that turmeric, for example, is effective in the treatment of cancer. *Duke Dep. Tr.* at 109, l. 25 - 110, l. 1-6.

228. Duke has never measured the efficacy of herbs as a treatment for cancer in a controlled patient population. *Duke Dep. Tr.* at 55, l. 21-24.

229. Duke is not able to express opinions on what the minimum dosage would be necessary to achieve cancer-fighting. *Duke Dep. Tr.* at 67, l. 24-25 - 68, l. 1.

230. Duke recognizes the difference between something being efficacious in an in vitro study and something being efficacious in human beings. *Duke Dep. Tr.* at 71, l. 20-24.

231. As a matter of science, Duke does not believe that the herbal extract working in vitro proves that it would work in a human. *Duke Dep. Tr.* at 77, l. 10-24.

232. Rather than relying solely on in vitro studies, Duke recommends "the third arm-trial where the whole plant or an extract thereof is compared with a competing pharmaceutical." *Duke Dep. Tr.* at 77, l. 17-24.

233. According to Duke, "[t]he third arm would compare a given herb with a given pharmaceutical and placebo." *Duke Dep. Tr.* at 81, l. 17-23.

234. Other than the St. John's Wort trial that used a placebo and Zoloft, Duke is not aware of any other studies where an herb, a pharmaceutical, and a placebo were studied in a side-by-side manner. *Duke Dep. Tr.* at 82, l. 1-17.

235. Duke does not think of black cohosh as a major anticancer herb. *Duke Dep. Tr.* at 123, l. 5-13.

236. Duke stated that there is no reference to cancer in eleuthero because "that's not one of the major things that are said about it." *Duke Dep. Tr.* at 125, l. 23-25 - 126, l. 1-2.

237. Most of the studies Duke has seen have been for preventing cancer. *Duke Dep. Tr.* at 128, l. 22-24.

238. Duke does not remember any studies specifically about treating cancer. *Duke Dep. Tr.* at 128, l. 25 - 129, l. 1-3.

239. Duke testified that anecdotal reports are "even below . . . my lines of evidence." *Duke Dep. Tr.* at 131, l. 15-20.

240. Duke attributes the increase in life expectancy in the 150 years that pharmaceuticals have been around to pharmaceuticals themselves. *Duke Dep. Tr.* at 133, l. 9-15.

241. Duke does not believe that homeostatic balancing has been the subject of any peer-reviewed articles in connection with the treatment or cure of cancer. *Duke Dep. Tr.* at 133, l. 25 - 134, l. 1-12.

242. In Duke's IE, there have been no clinical trials as to the efficacy of black cohosh for cancer. *Duke Dep. Tr.* at 147, l. 8-25.

243. There are no clinical trials regarding garlic's efficacy as to cancer in Duke's IE. *Duke Dep. Tr.* at 148, l. 1-5.

244. There are no clinical trials regarding Yellow Root's efficacy as to cancer in Duke's IE. *Duke Dep. Tr.* at 149, l. 1-5.

245. There are no clinical trials regarding eleuthero's efficacy as to cancer in Duke's IE. *Duke Dep. Tr.* at 153, l. 3-7.

246. There are no clinical trials regarding soybean's efficacy as to cancer in Duke's IE. *Duke Dep. Tr.* at 153, l. 24-25 - 154, l. 1-7.

247. There are no entries for sarsaparilla in Duke's IE indicating that it has been evaluated for its efficacy in treating cancer in clinical trials. *Duke Dep. Tr.* at 156, l. 21-24.

248. The editors of Duke's book, The Green Pharmacy Guide to Healing Foods, advised Duke to "shy away from" a section on cancer treatment. *Duke Dep. Tr.* at 178, l. 6-18.

249. Duke does not recall seeing any articles that Mr. and Mrs. Feijo believe substantiated the claims that they made regarding the particular DCO Products. *Duke Dep. Tr.* at 185, l. 7-11.

250. Duke has made no effort to evaluate whether the combination of the ingredients in each of the products that DCO sells - GDU, 7 Herb Formula, and BioMixx – has any synergistic effects. *Duke Dep. Tr.* at 190, l. 10-21.

251. Duke made no effort to see whether there were any studies of any sort regarding the particular products that DCO sells - GDU, 7 Herb Formula, and BioMixx. *Duke Dep. Tr.* at 190, l. 22-25 - 191, l. 1-4.

James K. Dews

252. Respondents offer James K. Dews ("Dews") as an expert in "[h]erbal formulations, specifically 7 Herb Formula." Deposition of James K. Dews (hereinafter referred to as *J. Dews Dep. Tr.*) at 4, l. 25 - 5, l. 1.

253. Dews attended the University of Texas at Arlington and Texas Wesleyan, but he did not finish college degrees at either institution. *J. Dews Dep. Tr.* at 11, l. 2-15.

254. According to Dews, neutraceuticals involves the merging of food supplements and pharmaceuticals. *J. Dews Dep. Tr.* at 17, l. 25.

255. Neutraceuticals involves the extraction of certain chemical compounds that are in many foods or herbs. *J. Dews Dep. Tr.* at 18, l. 14-18.

256. Consumers ingest neutraceuticals. *J. Dews Dep. Tr.* at 18, l. 6.

257. The difference between a pharmaceutical and a neutraceutical is that one can make a disease-curing claim with a pharmaceutical; one cannot make a disease-curing claim with a neutraceutical. *J. Dews Dep. Tr.* at 62, l. 17-18; *see also* 15, l. 12-13.

258. According to Dews, animal studies cannot be extrapolated to humans. *J. Dews Dep. Tr.* at 63, l. 18-25 - 64, l. 1-8.

Rustum Roy, Ph.D.

259. Respondents offer Rustum Roy, Ph.D. ("Roy") as "an expert in the conduct of scientific research and with the focus on health and materials." Deposition of Rustum Roy, Ph.D. (hereinafter referred to as *R. Roy Dep. Tr.*) at 7, l. 5-10.

260. Roy did not review the complaint that the FTC filed against Respondents. *R. Roy Dep. Tr.* at 7, l. 17-21.

261. Roy did not review any of the advertisements on which the FTC's complaint is predicated. *R. Roy Dep. Tr.* at 7, l. 22-24.

262. Roy did not review or obtain any of the product or product labels for the products at issue in the litigation. *R. Roy Dep. Tr.* at 7, l. 25 - 8, l. 1-3.

263. Roy did not conduct any work or tests on any product made by Respondents. *R. Roy Dep. Tr.* at 8, l. 15-22.

264. Roy is not an expert in homeopathy. *R. Roy Dep. Tr.* at 12, l. 11.

265. Roy and his laboratory do "zero clinical trials." *R. Roy Dep. Tr.* at 13, l. 20.

266. Roy and his laboratory "have nothing to do with causing healing or not in a human being." *R. Roy Dep. Tr.* at 13, l. 20-21.

267. Roy has not measured the efficacy of the DCO Products. *R. Roy Dep. Tr.* at 14, l. 2-5.

268. Roy has never done any experiments to measure the efficacy of any medical treatments "at the human level." *R. Roy Dep. Tr.* at 14, l. 6-9.

269. Roy has no idea what the DCO Products contain. *R. Roy Dep. Tr.* at 24, l. 21-25.

270. Roy has not done any literature searches or any literature research concerning any of the ingredients in DCO's products. *R. Roy Dep. Tr.* at 25, l. 3-7.

271. Roy does not have any formal training in medicine. *R. Roy Dep. Tr.* at 26, l. 9-11.

272. Roy has never treated or consulted with healers who were treating particular patients. *R. Roy Dep. Tr.* at 28, l. 9-11.

273. Roy does not know what Daniel Chapter One sells. *R. Roy Dep. Tr.* at 43, l. 6-8.

274. The practice of Daniel Chapter One selling products over the Internet to people that it had never seen, met, or examined the medical records for "obviously limits" homeopathy. *R. Roy Dep. Tr.* at 50, l. 5-19.

275. Roy's ideal description of homeopathy would not include selling products over the Internet to persons that the seller has not met. *R. Roy Dep. Tr.* at 51, l. 11-14.

276. It is not Roy's view that all herbal remedies are effective. *R. Roy Dep. Tr.* at 60, l. 60, l. 23-25 - 61, l. 1.

277. Roy has never been involved in trying to secure FDA approval for some medication. *R. Roy Dep. Tr.* at 79, l. 14-16.

Jay Lehr

278. No one has ever consulted Jay Lehr ("Lehr") about using herbs in connection with cancer. Deposition of Jay Lehr (hereinafter referred to as *J. Lehr Dep. Tr.*) at 10, l. 24-25 - 11, l. 1.

279. Lehr is not a cancer expert. *J. Lehr Dep. Tr.* at 15, l. 11.

280. Lehr would not speculate on whether Respondents' products could cure cancer; "that's now outside my area of expertise." *J. Lehr Dep. Tr.* at 33, l. 19-22.

281. Lehr has never spoken to Jim Feijo about his products that supposedly treat cancer or tumors. *J. Lehr Dep. Tr.* at 34, l. 2-5.

282. The only testing of pharmaceutical drugs and herbal supplements that Lehr has been involved in involves testing on himself. *J. Lehr Dep. Tr.* at 15, l. 18-25 - 16, l. 1-6.

283. Lehr takes three DCO products every day - Endurosine, Mito/ATP, and Electrocarb. *J. Lehr Dep. Tr.* at 17, l. 18-25 - 18, l. 1-14.

284. The label for PrePost speaks to athletic training. *J. Lehr Dep. Tr.* at 38, l. 1-5.

285. Endorosine increases the oxygen-carrying capacity of the blood. *J. Lehr Dep. Tr.* at 38, l. 9-12.

286. Mito/ATP is a pure energy distillate. *J. Lehr Dep. Tr.* at 38, l. 13-14.

287. Lehr has not spoken to any person who has taken DCO products to treat cancer. *J. Lehr Dep. Tr.* at 19, l. 14-17.

288. Lehr has never reviewed any of the medical claims of someone who stated that DCO's products have helped them to cure their cancer. *J. Lehr Dep. Tr.* at 19, l. 18-21.

289. Beyond his own personal study, Lehr has not conducted any studies on the four DCO Products. *J. Lehr Dep. Tr.* at 23, l. 2-5.

290. Respondent James Feijo has never suggested that Lehr take Bio*Shark, 7 Herb Formula, or BioMixx. *J. Lehr Dep. Tr.* at 25, l. 5-6.

291. The products that Respondent James Feijo has suggested to Lehr "have entirely been to improve [his] athletic performance." *J. Lehr Dep. Tr.* at 25, l. 6-8.

292. Lehr "can only substantiate the claims that [Respondents] have made on the three products [Endurosine, Mito/ATP, and Electrocarb] that [he has] taken regularly now for ten years." *J. Lehr Dep. Tr.* at 25, l. 9-17.

293. Lehr has not reviewed Respondents' Web site. *J. Lehr Dep. Tr.* at 27, l. 7-10.

294. Lehr does not have any familiarity with Respondents' products that are being sold to help people in the treatment of cancer. *J. Lehr Dep. Tr.* at 28, l. 3-6.

295. The only testing that Lehr is aware of that Respondent James Feijo conducted is that which he has done on PrePost and the other products that Respondent James Feijo has shared with him. *J. Lehr Dep. Tr.* at 28, l. 20-22.

296. Lehr's opinion is that because PrePost works so well on him that Respondents' other products should be as effective. *J. Lehr Dep. Tr.* at 32, l. 21-25 - 33, l. 1-18.

297. Lehr is familiar with radiation therapy and chemotherapy. *J. Lehr Dep. Tr.* at 34, l. 6-9.

298. Lehr has seen people positively impacted by conventional cancer treatments like radiation therapy and chemotherapy. *J. Lehr Dep. Tr.* at 34, l. 16-19.

299. Lehr has not been involved in any kinds of studies regarding the prevention, cure, or treatment of cancer in humans. *J. Lehr Dep. Tr.* at 35, l. 1-4.

300. Lehr did not have the opportunity to read any of the scientific studies that Daniel Chapter One has about its products. *J. Lehr Dep. Tr.* at 35, l. 18-21.

301. Lehr has had no need for any other supplements from DCO for any medical problems. *J. Lehr Dep. Tr.* at 40, l. 3-4.

302. Lehr's interests in DCO's products have "strictly been athletic." *J. Lehr Dep. Tr.* at 40, l. 4-5.

303. In preparing for giving expert testimony in this case, Lehr did not talk with Respondent James Feijo about the DCO Products that are the subject of this action. *J. Lehr Dep. Tr.* at 40, l. 6-15.

304. Lehr is not aware of what Daniel Chapter One has done in the double-blind type of study. *J. Lehr Dep. Tr.* at 47, l. 12-13.

305. Lehr is not aware of any studies done in connection with the DCO products that he takes. *J. Lehr Dep. Tr.* at 47, l. 14-17.

306. Lehr is not aware of Jim Feijo's background in science. *J. Lehr Dep. Tr.* at 52, l. 16-18.

Sally B. LaMont, N.D.

307. Respondents offer Sally B. LaMont, N.D. ("LaMont") as "an expert in naturopathic medical, herbal medicine, functional medicine . . . [and] as an expert on nutritional supplements and botanical medicines in the prevention and treatment of illness and as an expert in reviewing the evidence that supports the functional issues of the four products that are the challenged products." Deposition of Sally B. LaMont, N.D. (hereinafter referred to as *LaMont Dep. Tr.*) at 7, l. 20-25 - 8, l. 1-2.

308. LaMont has never previously been asked to be an expert. *LaMont Dep. Tr.* at 54, l. 9-12.

309. Lamont's charge from Respondents is "to provide opinions on the use of nutritional supplements and botanical medicines in the prevention and treatment of illness, including but not limited to cancer, and to review the evidence that exists regarding the mechanisms of action of the major constituents of Daniel Chapter One's products." *LaMont Dep. Tr.* at 33, l. 13-22.

310. LaMont is a naturopathic doctor. *LaMont Dep. Tr.* at 9, l. 9-11, 15, l. 23-25 - 16, l.1.

311. According to LaMont, naturopathic medicine "is a primary healthcare practice that focuses on health promotion and disease prevention and the treatment of disease with an array of natural therapies that strengthen the body's innate healing capacities." *LaMont Dep. Tr.* at 9, l. 14-18.

312. Naturopathic doctors "provide patient-centered care and practice what would be termed functional medicine, which addresses the unique genetic, environmental and lifestyle factors that contribute to chronic disease and . . . influence our health." *LaMont Dep. Tr.* at 9, l. 19-24.

313. While engaged in naturopathic medicine, LaMont has worked in conjunction with traditional physicians. *LaMont Dep. Tr.* at 10, l. 2-5.

314. In the course of doing a workup on a patient, if LaMont finds "a diagnosis that looks like it could be cancer," she absolutely would refer the patient to a traditional physician and would comanage that patient's care with the physician. *LaMont Dep. Tr.* at 10, l. 16-22.

315. LaMont has not focused her naturopathic practice on naturopathic oncology; rather, she "ha[s] kept [her] practice very general." *LaMont Dep. Tr.* at 11, l. 20-25 - 12, l. 1-2.

316. LaMont does not know what additional specialized training naturopathic oncologists take. *LaMont Dep. Tr.* at 12, l. 7-11.

317. LaMont has not done the specialized training for naturopathic oncology. *LaMont Dep. Tr.* at 12, l. 9-10.

318. After LaMont's first husband passed away from non-Hodgkin's lymphoma, she "chose to step back from [dealing with cancer patients] for several years." *LaMont Dep. Tr.* at 12, l. 12-22.

319. LaMont started practicing naturopathic medicine in 1981 and stopped in 2000 to raise her daughter and to lead the campaign to license naturopathic doctors in California. *LaMont Dep. Tr.* at 13, l. 8-19.

320. LaMont returned to the private practice of naturopathic medicine almost a year ago by working part-time, practicing one day a week and beginning to add a second day. *LaMont Dep. Tr.* at 13, l. 20-25.

321. If LaMont ever found, for example, an abnormal pap smear with carcinoma inside, then she "would refer that patient to a gynecologist for a comprehensive workup and recommend that [her] patients follow the advice of their oncologist." *LaMont Dep. Tr.* at 14, l. 11-17.

322. LaMont's understanding is that "cancer must be treated with conventional therapies." *LaMont Dep. Tr.* at 15, l. 1-4.

323. LaMont has seen conventional cancer therapies helpful in sometimes resolving the condition. *LaMont Dep. Tr.* at 15, l. 1-6.

324. LaMont would always make a referral to a cancer specialist because "it's an important part of the treatment of cancer at this point." *LaMont Dep. Tr.* at 15, l. 12-17.

325. Fourteen states license N.D.s. *LaMont Dep. Tr.* at 17, l. 3-8.

326. A licensed naturopathic doctor's responsibilities are "to diagnose and to treat disease and to promote health, which is honestly the focus of our practice, to really strengthen our body's ability to heal itself." *LaMont Dep. Tr.* at 17, l. 17-24.

327. The core of LaMont's practice is "[w]orking with diet and nutrition [and] nutritional supplements." *LaMont Dep. Tr.* at 20, l. 1-2.

328. LaMont also uses botanical medicine. *LaMont Dep. Tr.* at 20, l. 7.

329. LaMont works with mind-body therapies and regularly suggests meditation, qigong, yoga, and other biofeedback-type of therapies that would strengthen the person's connection between their mind and their immune system. *LaMont Dep. Tr.* at 20, l. 7-12.

330. LaMont does acupuncture on most patients. *LaMont Dep. Tr.* at 20, l. 15.

331. Nutritional supplements come from food and are an extension of food. *LaMont Dep. Tr.* at 20, l. 22-23.

332. Botanical medicine "comes from the plant world, and so there are phytochemicals in plants and then there's the whole plant." *LaMont Dep. Tr.* at 20, l. 24-25 - 21, l. 1.

333. Almost all the patients who come to LaMont who have been diagnosed with cancer come to her with that diagnosis and are looking for supportive care. *LaMont Dep. Tr.* at 23, l. 5-10.

334. LaMont thinks that the amount of dosage is important to the individual taking it and their health regimen. *LaMont Dep. Tr.* at 28, l. 11-15.

335. For someone who is in the "throes of chemotherapy," LaMont would have them not to use many of their nutritional supplements the week that they are on chemotherapy. *LaMont Dep. Tr.* at 31, l. 5-9.

336. The reason why LaMont would advise someone not to use nutritional supplements during chemotherapy is because "we don't fully understand yet all of the different ways in which this and other natural therapies may interact with chemotherapy." *LaMont Dep. Tr.* at 31, l. 10-20.

337. LaMont only became familiar with DCO at the end of December 2008. *LaMont Dep. Tr.* at 22, l. 23-25 - 23, l. 1-4.

338. Prior to LaMont's work on this case, she had never come across Bio*Shark, 7 Herb Formula, GDU, and BioMixx. *LaMont Dep. Tr.* at 34, l. 5-7.

339. LaMont looked at the labels for the DCO Products and did literature search on the main constituents of each of the products. *LaMont Dep. Tr.* at 34, l. 11-18.

340. LaMont acknowledged that since they have not been tested, we do not know the effectiveness of GDU, BioMixx, Bio*Shark, and 7 Herb Formula in the prevention, treatment or cure of cancer. *LaMont Dep. Tr.* at 47, l. 25 - 48, l. 1-11.

341. LaMont acknowledged that there have been no clinical studies performed on the DCO Products. *LaMont Dep. Tr.* at 48, l. 21-23.

342. The DCO products "are not silver bullets." *LaMont Dep. Tr.* at 127, l. 3-5.

343. LaMont does not know the Feijos. *LaMont Dep. Tr.* at 49, l. 2-5.

344. LaMont thinks that it is "best that people follow the recommendations of their oncologist and utilize protocols that are proven to be most effective for their cancer and that they should be well-informed of the potential value of the array of other therapies." *LaMont Dep. Tr.* at 49, l. 19-25.

345. LaMont testified that "as a doctor, if I'm working with a patient, I'm going to insist that they work with their oncologist and follow their advice and I'm going to comanage their care." *LaMont Dep. Tr.* at 51, l. 24-25 - 52, l. 1-2.

346. LaMont believes that "[t]he awareness of the powerful chemoprotective effects of plant foods and medicines should not influence patients with cancer and other serious diseases to abandon using the most effective methods that modern medicine has to offer." *LaMont Dep. Tr.* at 52, l. 11-20.

347. LaMont would not be comfortable with the Feijos saying that the DCO products are going to cure cancer. *LaMont Dep. Tr.* at 53, l. 4-19.

348. LaMont can see why the Federal Trade Commission would have concerns about the statement that DCO's products are cancer solutions. *LaMont Dep. Tr.* at 127, l. 15-24.

349. LaMont would not have written the text that way to include "cancer solutions" next to the DCO products. *LaMont Dep. Tr.* at 128, l. 2-4.

350. LaMont does not "believe that on their own across the board these [DCO] products are going to effectively treat cancer." *LaMont Dep. Tr.* at 53, l. 20-24.

351. LaMont did not listen to the Feijo's radio show nor did she have the interest in listening to their show. *LaMont Dep. Tr.* at 77, l. 1-8.

352. LaMont did not say that she would defend the DCO products because she has limited knowledge of their products. *LaMont Dep. Tr.* at 78, l. 16-18.

353. LaMont has never used the DCO products. *LaMont Dep. Tr.* at 78, l. 18.

354. LaMont has not studied the DCO products specifically. *LaMont Dep. Tr.* at 87, l. 25 - 88, l. 1-5.

355. LaMont acknowledges that traditional use evidence does not replace human clinical trials. *LaMont Dep. Tr.* at 89, l. 19-22.

356. LaMont acknowledges that it is not a common occurrence in the industry to make cancer cure or cancer treatment claims. *LaMont Dep. Tr.* at 144, l. 20-25 - 145, l. 1-2.

357. LaMont does not know of other companies that make claims that their products treat or cure cancer. *LaMont Dep. Tr.* at 145, l. 3-5.

358. Until there are clinical trials, LaMont agrees that "we don't know" whether DCO's products would effective in battling cancer. *LaMont Dep. Tr.* at 147, l. 20-24.

359. LaMont "wouldn't want to have anybody say, [t]ake this, it's going to cure your colon cancer." *LaMont Dep. Tr.* at 161, l. 12-15.

360. LaMont thinks the approach of referring to some doctors as Dr. Dumb-Dumb, as James Feijo does on his radio show, is disrespectful. *LaMont Dep. Tr.* at 166, l. 7-10.

361. LaMont agrees that there is a danger if consumers do not continue with traditional cancer therapy. *LaMont Dep. Tr.* at 166, l. 20-22.

362. LaMont personally does not think that the Feijos should be suggesting that people should not get colonoscopies, as they suggest on their radio show. *LaMont Dep. Tr.* at 182, l. 8-17.

363. LaMont recognizes that there's always that danger that people will take DCO products and not go and see their physicians. *LaMont Dep. Tr.* at 183, l. 12-15.

364. LaMont has never conducted a scientific controlled study of any sort. *LaMont Dep. Tr.* at 184, l. 12-14.

365. LaMont does not take any DCO products. *LaMont Dep. Tr.* at 184, l. 25 - 185, l. 1-2.

366. LaMont has not reviewed the medical records of anyone who has taken DCO products. *LaMont Dep. Tr.* at 185,l . 3-5.

BioShark

James Duke, Ph.D.

367. Duke is not offering opinions on BioShark "[b]ecause the major ingredient is an animal, and I don't deal in animals." *Duke Dep. Tr.* at 63, l. 19-25.

368. Duke was not asked to provide an opinion on BioShark. *Duke Dep. Tr.* at 64, l. 1.

369. Duke does not think highly of the studies that have been published on shark cartilage. *Duke Dep. Tr.* at 64, l. 2-9.

370. Duke "was not convinced of the efficacy of shark cartilage in the studies that [he] read." *Duke Dep. Tr.* at 64, l. 13-15.

James K. Dews

371. Dews never has heard of Bio*Shark. *J. Dews Dep. Tr.* at 53, l. 10-12.

372. Dews is not familiar with the use of shark cartilage in the treatment of cancer, and he has never seen any data relating to the use of shark cartilage in the treatment of cancer. He only has heard of this. *J. Dews Dep. Tr.* at 54, l. 4-7.

Jay Lehr

373. Lehr is not familiar with the product called Bio*Shark. *J. Lehr Dep. Tr.* at 21, l. 20-22.

374. Lehr has never spoken to Respondent James Feijo about Bio*Shark. *J. Lehr Dep. Tr.* at 25, l. 23-24.

375. Lehr has not done any literature searches on Bio*Shark. *J. Lehr Dep. Tr.* at 25, l. 24-25 - 26, l. 1.

376. Lehr is not aware whether Jim Feijo has ever done any testing on Bio*Shark. *J. Lehr Dep. Tr.* at 28, l. 13-15.

377. Lehr is not aware of any double-blind studies done in connection with Bio*Shark. *J. Lehr Dep. Tr.* at 47, l. 18-22.

Sally B. LaMont, N.D.

378. LaMont does not know whether the product Bio*Shark inhibits tumor growth. *LaMont Dep. Tr.* at 91, l. 15-19.

379. LaMont does not know whether Bio*Shark is effective in the treatment of cancer. *LaMont Dep. Tr.* at 92, l. 6-8.

380. LaMont acknowledged that there are no well-controlled studies demonstrating that the product Bio*Shark is antiangiogenic. *LaMont Dep. Tr.* at 101, l. 3-7.

381. LaMont stated that there are no studies on Bio*Shark that are controlled clinical trials demonstrating its effectiveness. *LaMont Dep. Tr.* at 101, l. 17-22.

382. LaMont does not know of any good or reliable data on the amount of antiangiogenic activity per gram of shark cartilage. *LaMont Dep. Tr.* at 112, l. 6-11.

383. LaMont agreed that it would be ideal to study variables such as the bioavailabilty, the absorption, and the distribution of Bio*Shark in order to assess its effectiveness with respect to cancer. *LaMont Dep. Tr.* at 101, l. 23-25 - 102, l. 1-12.

384. LaMont probably would not use Bio*Shark or a product like it in her practice because she thinks that there are other ways to inhibit angiogenesis that are more certain. *LaMont Dep. Tr.* at 151, l. 6-11.

7 Herb Formula

James Duke, Ph.D.

385. Duke has no idea how much Burdock root in vitro would be necessary to eliminate cancer. *Duke Dep. Tr.* at 72, l. 1-8.

386. Duke understands that four of the herbs in 7 Herb Formula are the "Essiac formula [that] have had both positive and negative trials published in PubMed." *Duke Dep. Tr.* at 73, l. 3-8.

387. Duke does not know how much of the elements that are in 7 Herb Formula are actually in the product sold by DCO. *Duke Dep. Tr.* at 78, l. 22-24.

388. Duke acknowledged that although two of the lignans in Burdock have shown antilymphomic properties, they probably were in vitro. *Duke Dep. Tr.* at 125, l. 5-9.

389. There are no clinical trials regarding Burdock's efficacy as to cancer in Duke's IE. *Duke Dep. Tr.* at 148, l. 13-19.

390. There is no indication in Duke's IE that watercress has been evaluated in clinical trials for its efficacy in treating cancer. *Duke Dep. Tr.* at 154, l. 16-20.

391. There is no indication in Duke's IE that turkey rhubarb has been evaluated in clinical trials to treat cancer. *Duke Dep. Tr.* at 155, l. 14-17.

392. There is no indication in Duke's IE that sheep sorrell has been evaluated in clinical trials to measure its efficacy in treating cancer. *Duke Dep. Tr.* at 153, l. 18-23.

393. There is no indication in Duke's IE that slippery elm has been evaluated in clinical trials for its efficacy in treating cancer. *Duke Dep. Tr.* at 157, l. 6-17.

394. There is no indication in Duke's IE that Cat's Claw has been evaluated in clinical trials for its efficacy in treating cancer. *Duke Dep. Tr.* at 157, l. 18-25 - 158, l. 1-10.

395. Duke "do[es]n't think much of the Essiac formula." *Duke Dep. Tr.* at 129, l. 4-10.

396. Duke acknowledged that sheep sorrel is "touted" for cancer in the Essiac formula. *Duke Dep. Tr.* at 129, l. 12-14.

397. Duke would recommend Slippery Elm "more for stomach problems, mucous problems. It's famous for that." *Duke Dep. Tr.* at 130, l. 11-15.

398. Slippery Elm "is not one of the first things in [Duke's] cancer category." *Duke Dep. Tr.* at 130, l. 17-18.

James K. Dews

399. Dews "never heard of the 7 Herb Formula until this [lawsuit]." *J. Dews Dep. Tr.* at 59, l. 12-13.

400. According to Dews, 7 Herb Formula is a neutraceutical. *J. Dews Dep. Tr.* at 62, l. 19-20.

401. Dews is not prepared to talk about how the herbs in 7 Herb Formula may or may not benefit somebody with cancer. *J. Dews Dep. Tr.* at 39, l. 8-11.

402. Dews has never seen any controlled studies regarding 7 Herb Formula and its effectiveness in treating cancer. *J. Dews Dep. Tr.* at 58, l. 20-23.

403. Dews has never seen any studies that would say that 7 Herb Formula is effective in curing cancer. *J. Dews Dep. Tr.* at 58, l. 24-25 - 59, l. 1.

404. Dews does not know of any studies on whether 7 Herb Formula prevents cancer. *J. Dews Dep. Tr.* at 59, l. 5-8.

405. Dews is not familiar with any studies that say there is anticancer activity in any of the components from the herbs contained in 7 Herb Formula. *J. Dews Dep. Tr.* at 16-24.

406. Dews is not aware of any studies showing that 7 Herb Formula inhibits tumor formation. *J. Dews Dep. Tr.* at 59, l. 9-12.

407. Other than "folk-wise" uses of the herbs contained in 7 Herb Formula as a folk remedy for cancer, there have not been any scientific studies done on the herbs found in 7 Herb Formula relating to their effectiveness as a remedy for cancer treatment. *J. Dews Tr.* at 45, l. 21-25 - 46, l. 1-9.

408. Dews does not recall seeing cancer mentioned specifically in any studies relating to burdock root. *J. Dews Dep. Tr.* at 44, l. 11-14.

409. Dews has never "seen it stated that [Siberian ginseng] helps with cancer." *J. Dews Dep. Tr.* at 46, l. 19-20.

410. Dews has not ever seen any studies that have found that Siberian ginseng reduces tumors. *J. Dews Dep. Tr.* at 47, l. 13-15.

411. Dews has never seen any studies showing that slippery elm can help with, for example, stomach cancer. *J. Dews Dep. Tr.* at 49, l. 17-20.

412. Dews has never seen any actual scientific studies done that would show that slippery elm can cure any disease. *J. Dews Dep. Tr.* at 50, l. 1-3.

413. Dews has not seen any scientific studies on rhubarb root relating to treating cancer. *Jim Dews Dep. Tr.* at 51, l. 23-25 - 52, l. 1-9.

Jay Lehr

414. Lehr has never spoken to Respondent James Feijo about 7 Herb Formula. *J. Lehr Dep. Tr.* at 24, l. 25 - 25, l. 1-2.

415. Lehr has not done any scientific literature searches on 7 Herb Formula. *J. Lehr Dep. Tr.* at 26, l. 2-4.

416. Lehr is not aware whether Jim Feijo has ever done any testing on 7 Herb Formula. *J. Lehr Dep. Tr.* at 28, l. 16-17.

417. Lehr is not aware of any double-blind studies done in connection with 7 Herb Formula. *J. Lehr Dep. Tr.* at 47, l. 25 - 48, l. 1.

Sally B. LaMont, N.D.

418. LaMont does not know whether 7 Herb Formula is effective in the treatment or cure of cancer. *LaMont Dep. Tr.* at 105, l. 20-25.

419. LaMont "do[es]n't think that 7 Herb Formula is going to cure cancer." *LaMont Dep. Tr.* at 205, l. 2-3.

420. LaMont acknowledged that there are no clinical studies on this particular [7 Herb] formula. *LaMont Dep. Tr.* at 106, l. 2-4.

421. LaMont does not know about the doses in 7 Herb Formula. *LaMont Dep. Tr.* at 104, l. 5-7.

422. LaMont does not know whether essiac has ever been evaluated in clinical trials to determine if it has any anticancer activity. *LaMont Dep. Tr.* at 106, l. 24-25 - 107, l. 1-2.

423. LaMont testified that "[i]t would be a stretch to suggest that this [7 Herb Formula] is on its own going to be effective in treating cancer." *LaMont Dep. Tr.* at 117, l. 6-19.

424. LaMont "would be concerned about patients taking [7 Herb Formula] on its own and expecting their cancer to go away." *LaMont Dep. Tr.* at 118, l. 23-25.

425. LaMont stated that "[i]t would be a stretch for [her] that [7 Herb Formula] is a solution to cancer." *LaMont Dep. Tr.* at 120, l. 15-21.

426. Lamont "would be surprised if [7 Herb Formula] itself is the solution to cancer." *LaMont Dep. Tr.* at 120, l. 23-24.

427. LaMont would have a concern if 7 Herb Formula was advertised as a cancer solution. *LaMont Dep. Tr.* at 120, l. 25 - 121, l. 1-7; 123, l. 12-15.

428. LaMont does not know whether the amount of cat's claw in 7 Herb Formula is going to be effective. *LaMont Dep. Tr.* at 129, l. 18-22.

429. LaMont acknowledged that we do not know whether 7 Herb Formula as an independent agent would have any beneficial effects in respect to ovarian cancer. *LaMont Dep. Tr.* at 137, l. 14-19.

430. LaMont personally has never used any of the essiac tea formulas in her practice. *LaMont Dep. Tr.* at 150, l. 23-25.

431. LaMont does not think it is a good idea to take 7 Herb or GDU instead of having a polyp in the colon cut out. *LaMont Dep. Tr.* at 182, l. 23-25 - 183, l. 1-4.

GDU

James Duke, Ph.D.

432. Duke does not know how much of the elements that are in GDU are actually in the product sold by DCO. *Duke Dep. Tr.* at 78, l. 18-21.

433. Duke testified that he saw two or three studies on turmeric, "but they were not conclusive." *Duke Dep. Tr.* at 120, l. 13-17.

434. Duke is not sure whether turmeric is more effective in fighting cancer than curcumin in an isolated form. *Duke Dep. Tr.* at 137, l. 16-25.

435. Duke does not remember any clinical studies on Bromelain. *Duke Dep. Tr.* at 124, l. 11-16.

436. Duke testified that Feverfew is "not the first thing I think about when I'm thinking cancer." *Duke Dep. Tr.* at 129, l. 22-25 - 130, l. 1.

437. There are no clinical trials regarding pineapple Bromelain's efficacy as to cancer in Duke's IE. *Duke Dep. Tr.* at 148, l. 6-12.

438. Based on his review, there are no clinical trials regarding turmeric's efficacy as to cancer in Duke's IE. *Duke Dep. Tr.* at 153, l. 8-14.

439. There are no indications in Duke's IE that Feverfew has been evaluated in clinical trials for its efficacy in treating cancer. *Duke Dep. Tr.* at 157, l. 1-5.

James K. Dews

440. Dews is not familiar with the product GDU. In fact, he does not have a clue what GDU is. *J. Dews Dep. Tr.* at 55, l. 3-4.

441. The active chemical in turmeric is curcumin, and curcumin is "very good at reducing inflammation." *J. Dews Dep. Tr.* at 65, l. 17-24.

442. One cannot say that reducing inflammation is a cure for any particular disease. *J. Dews Dep. Tr.* at 66, l. 4-5.

Jay Lehr

443. Lehr has not spoken to Respondent James Feijo about GDU and what its components are. *J. Lehr Dep. Tr.* at 25, l. 18-20.

444. Lehr has not done any scientific literature searches on GDU. *J. Lehr Dep. Tr.* at 26, l. 7-8.

445. Lehr is not aware whether Respondent James Feijo has ever done any testing on GDU. *J. Lehr Dep. Tr.* at 28, l. 19-20.

Sally B. LaMont, N.D.

446. LaMont does not know whether the product GDU eliminates tumors. *LaMont Dep. Tr.* at 92, l. 11-19.

447. LaMont does not know whether GDU is effective in curing cancer. *LaMont Dep. Tr.* at 43, l. 2-11.

448. LaMont does not know whether GDU is effective in the treatment of cancer. *LaMont Dep. Tr.* at 92, l. 20-23.

449. LaMont is not aware of any clinical studies of GDU. *LaMont Dep. Tr.* at 42, l. 24-25 - 43, l. 1.

450. LaMont agrees that it would be fair to stay that it's impossible today to state the degree to which GDU is effective in the treatment or cure of cancer. *LaMont Dep. Tr.* at 45, l. 21-25 - 46, l. 1-8.

451. LaMont does not know whether GDU on its own at its dose would eliminate tumors. *LaMont Dep. Tr.* at 74, l. 19-25 - 75, l. 1-3.

452. LaMont recommends curcumin to inhibit inflammation. *LaMont Dep. Tr.* at 27, l. 3-10.

453. LaMont recommends that her patients use turmeric in their diet and have them supplement it in a dose of around 300 milligrams a day. *LaMont Dep. Tr.* at 27, l. 11-25.

454. LaMont's understanding is that 300 milligrams of turmeric per day has been commonly found to be effective at reducing inflammation. *LaMont Dep. Tr.* at 28, l. 1-5.

455. LaMont thinks that taking turmeric in high doses can inhibit clot formation. *LaMont Dep. Tr.* at 30, l. 23-25 - 31, l. 1-4.

456. One clinical study that LaMont can mention came out last month and involved the use of turmeric or curcumin in patients with pancreatic cancer. *LaMont Dep. Tr.* at 38, l. 7-25 - 39, l. 1-11.

457. According to LaMont, the 2008 study involving patients with pancreatic cancer used eight grams of a curcuminoid a day. *LaMont Dep. Tr.* at 38, l. 21-25 - 39, l. 1-3.

458. LaMont believes that GDU contains 300 milligrams of turmeric. *LaMont Dep. Tr.* at 40, l. 16-21.

459. LaMont does not know whether 300 milligrams of turmeric were also studied in the context of the 2008 study. *LaMont Dep. Tr.* at 41, l. 1-3.

460. LaMont is not familiar with any clinical studies of curcumin at 300 milligrams per day. *LaMont Dep. Tr.* at 41, l. 15-23; 42, l. 16-18.

461. LaMont has "no way of knowing how many milligrams [of quercetin] would produce a certain therapeutic response." *LaMont Dep. Tr.* at 64, l. 13-22.

462. LaMont agreed that the dosage found in GDU is on the lower end of the therapeutic spectrum. *LaMont Dep. Tr.* at 67, l. 8-16.

463. LaMont agrees that there is a big difference between seeing bromelain work in the capacity of a swollen ankle and having it work in the context of cancer. *LaMont Dep. Tr.* at 71, l. 23-25 - 72, l. 1-2.

464. LaMont does not know what dosage of feverfew was contained or used in the study from Molecular Cancer Therapies in April 2005. *LaMont Dep. Tr.* at 80, l. 21-23.

465. LaMont does not know what dosage of feverfew was used in the study from the British Journal of Pharmacology in 2002. *LaMont Dep. Tr.* at 81, l. 12-14.

BioMixx

James Duke, Ph.D.

466. Duke does not know how much of the elements that are in BioMixx are actually in the product sold by DCO. *Duke Dep. Tr.* at 78, l. 22-24.

Jay Lehr

467. Lehr has never heard of the product BioMixx. *J. Lehr Dep. Tr.* at 22, l. 8-9.

468. Lehr has never spoken to Respondent James Feijo about BioMixx. *J. Lehr Dep. Tr.* at 25, l. 3-4.

469. Lehr has not done any scientific literature searches on BioMixx. *J. Lehr Dep. Tr.* at 26, l. 5-6.

470. Respondent James Feijo has not shared with Lehr the results of any testing done on BioMixx. *J. Lehr Dep. Tr.* at 28, l. 7-9.

471. Lehr is not aware whether Respondent James Feijo has ever done any testing on BioMixx. *J. Lehr Dep. Tr.* at 28, l. 10-12.

472. Lehr is not aware of any double-blind studies done in connection with BioMixx. *J. Lehr Dep. Tr.* at 47, l. 23-24.

Sally B. LaMont, N.D.

473. LaMont recognizes that BioMixx "certainly has not gone through those kind of clinical trials that would prove that it's going to cure cancer." *LaMont Dep. Tr.* at 172, l. 14-20.

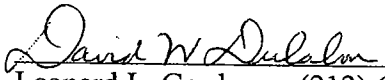
474. LaMont "do[es]n't think as a stand-alone [product] BioMixx is going to cure their cancer or probably even effectively treat it." *LaMont Dep. Tr.* at 176, l. 16-22.

475. LaMont did not write that BioMixx is effective in the treatment of cancer in her report. *LaMont Dep. Tr.* at 210, l. 13-15.

476. LaMont is not concluding that BioMixx is effective in the treatment of cancer. *LaMont Dep. Tr.* at 211, l. 6-9.

477. LaMont is not concluding that BioMixx completely heals the destructive effects of radiation and chemotherapy. *LaMont Dep. Tr.* at 211, l. 10-20.

Respectfully submitted,



Leonard L. Gordon (212) 607-2801
Theodore Zang, Jr. (212) 607-2816
Carole A. Paynter (212) 607-2813
David W. Dulabon (212) 607-2814
Elizabeth K. Nach (202) 326-2611

Federal Trade Commission
Alexander Hamilton U.S. Custom House
One Bowling Green, Suite 318
New York, NY 10004

Dated: February 24, 2009

Exhibit
2

In the Matter of:

Daniel Chapter One, et al.

February 11, 2009
James K. Dews

Condensed Transcript with Word Index

For The Record, Inc.
(301) 870-8025 - www.ftrinc.net - (800) 921-5555

FEDERAL TRADE COMMISSION
I N D E X

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION

In the Matter of:)
DANIEL CHAPTER ONE, a corporation,)
and) Docket No. 9329
JAMES FEIJO, individually and as)
an officer of Daniel Chapter One)
----------)

Wednesday, February 11, 2009

Room 318
Federal Trade Commission
One Bowling Green
New York, New York 10004

The above-entitled matter came on for deposition, pursuant to notice, at 10:34 a.m.

APPEARANCES:

ON BEHALF OF THE FEDERAL TRADE COMMISSION:
CAROLE A. PAYNTER, ESQ.
THEODORE ZANG JR., ESQ.
DAVID W. DULABON, ESQ.
Federal Trade Commission
Northeast Region
One Bowling Green - Suite 318
New York, New York 10004
(212) 607-2813
cpaynter@ftc.gov

ON BEHALF OF THE RESPONDENTS:
JAMES S. TURNER, ESQ.
Swankin & Turner
1400 16th Street, N.W. - Suite 101
Washington, D.C. 20036
(202) 462-8800
jim@swankin-turner.com

P R O C E E D I N G S
- - - - -

Whereupon --
JAMES K. DEWS
a witness, called for examination, having been first duly sworn, was examined and testified as follows:

EXAMINATION
BY MS. PAYNTER:

Q. Good morning, Mr. Dews.
A. Good morning.
Q. My name is Carole Paynter, and I'm an attorney with the Federal Trade Commission.
Along here with me are my co-counsel, Ted Zang and David Dulabon.
And we all represent the commission in this case.
A. Okay.
Q. And you're here this morning to give your deposition for all purposes.
A. Okay.
MS. PAYNTER: Okay. And first, before we move forward into your testimony, just I would like to put on the record, Mr. Turner, what actually is the respondent alleging Mr. Dews is an expert on.
MR. TURNER: Herbal formulations, specifically

5

7 Herb Formula.
MS. PAYNTER: Okay. Because I believe that the submission you gave previously said preclaim substantiation of respondents' challenged claims, so it was very broad, so are you limiting that now?
MR. TURNER: Yes. Well, that's -- what I just said is what it should be and that's what it should have said, so I didn't catch that when it went in.
MS. PAYNTER: Okay. Just to 7 Herb Formula.
MR. TURNER: Correct.
MS. PAYNTER: Okay. Thank you.
THE WITNESS: I'm not aware of what charges the FTC has made and I don't want to be.
BY MS. PAYNTER:
Q. Okay. Well, we'll see as we go forward what we can get from you today. Okay?
As I mentioned, we are here to take your testimony regarding matters in this case, the Federal Trade Commission's action against Daniel Chapter One and Mr. James Feijo, who is an officer and owner of the company.
A. Uh-huh.
Q. First, have you ever been deposed before?
A. Oh, yes.
Q. Okay. And how many times have you been

6

deposed?
A. I've lost count. Five or six times.
Q. And in what kind of action have you been deposed?
A. This was mostly competitors, ex-employees, things of that sort.
Q. Have you ever appeared as an expert witness in a case?
A. I did in the State of New York -- New Jersey versus Alan Shair in which the state had charged him with selling a not dangerous substance, and my testimony won him an acquittal and they changed the laws as a result.
Q. So can you give me more information about that? What was he selling?
A. Yeah. I had a customer who was a psychologist, not a psychiatrist, so he was not an M.D., he was a Ph.D., and he was very much interested in products that could be used for -- in his practice, and he had asked me to produce a substance known as hydroxymethylbutyrate or HMB.
Now, that is what is commonly sometimes referred to as the date rape drug. Now, it is a drug. It is used. And in the right amounts it's helpful in that it helps to relax the patient. In large amounts you can

7

overrelax and actually knock the people out to where they don't know what's going on, and that's how this came about.
And I told him I could not supply that because it was questionable, that he wouldn't know what to do with it or how to properly use it. He was not a physician, so therefore -- he was not a medical doctor; therefore, he could not use it.
Then he said, Well, I've got to have it. And I said the closest thing I can get to it is beta-hydroxybutyrate, which is the common amino acid L-threonine, T-H-R-E-O-N-I-N-E, which has a similar action.
And I said now -- he said he wanted to use it for research and so he wanted a kilo. Everything we do is metric, so that's I think metrically.
And so we supplied it, and I labeled it properly. Well, he got it and he was telling his patients it was HMB. He got a knock on his door at two o'clock one morning, and they tore the door down and put him in prison, and so they were charging him with selling an unapproved substance.
In the meantime, they analyzed it and found that it was L-threonine. They checked our records, and it was indeed L-threonine. But they had to go on

8

through with the trial. It ended up that they thanked me.
And as a result, you have to be careful with chemical names. Just a slight difference can make a major difference in the way they work.
Q. Okay. Well, do you remember what year that was, the case was?
A. It's been about five or ten years ago.
Q. Actually before we go on further, you mentioned drugs. I should ask you today, are you taking any medication that might affect your testimony today?
A. No.
Q. Okay. Thank you.
And just -- I know you've been deposed before, so I know you've heard some of these instructions already, but you know, when you do answer, we need you to give a verbal response to the questions --
A. Yes, ma'am.
Q. -- so the court reporter can take it down.
If you don't understand something I've asked, please ask me to clarify it and, you know, let me know, and I'll rephrase it if I can.
If there is -- if you need to take a break, just let me know, and at an appropriate time we can take a break.

9

And then also, if there's anything that, as I said, that you need me to correct, I'll go back and correct it, and we can correct it on the record here today.

Do you understand those instructions?

A. Yes, ma'am.

I might mention, for her benefit, I'm stone deaf in that ear and I wear a hearing aid in this one, so I'm trying to speak clearly (indicating).

Q. Am I speaking --

A. And I'll try to hear -- yes. You're doing fine.

Q. Okay. Very good. Thank you.

So sometimes I do speak fast. If I'm speaking too fast, please let me know and --

A. Okay. Yeah. But this bad ear is on her side, so...

Q. Okay.

So court reporter, you've been warned. You have to shout.

A. You'll notice I'll turn my head.

Q. Okay. Well, do you want to sit on this side or are you --

A. No. It's fine. It's fine. I do pretty well. This is a pretty good hearing aid.

10

Q. Okay. Good.

So you mentioned that you were involved in an action with the State of New Jersey as an expert, but have you ever been involved in any action with yourself or your company where the federal government has sued you?

A. Right. Well, we do have two companies, but we've never been involved. We are regulated, certainly used to be inspected on a regular basis by the FDA. Now it's changed with the current situation. Usually it's the TDH, and sometimes the FDA follows up.

Q. And what's the TDH?

A. Texas Department of Health. They do the primary inspecting now.

Q. Have you ever been sued by the Texas Department of Health?

A. No.

Q. Or any other -- or any action by them?

A. No. I get along with them just fine.

(Discussion off the record initiated by the court reporter.)

BY MS. PAYNTER:

Q. Mr. Dews, can you tell me what your educational background is.

A. Yes. After high school -- I graduated from

11

schools in Fort Worth. I was raised in Fort Worth. And then I went to the University of Texas at Arlington -- and of course the University of Texas has different schools around the state, and Arlington is between Dallas and Fort Worth -- and I majored in science.

Then my father was an accountant, and I was helping him with his practice some, and so I also went to Texas Wesleyan, which is now a university, in Fort Worth, and I majored in business administration and accounting.

Q. And did you obtain a degree in any of the --

A. Didn't finish it.

Q. How many years did you attend college?

A. About two or three at UTA and about two at Texas Wesleyan.

Q. Since attending college, have you obtained any licenses or other certifications?

A. Well, I belong to quite a few of the different organizations involved, such as the tie, the AOAC (indicating). That's -- it used to be the American Organization of Analytical Chemists. Now they -- it's international, so they just changed the name to AOAC. But that is the agency that sets the methods of analyzing chemical compounds and determining the correct or the official method of analysis, which is

12

one of the things I do in my profession.

Q. Okay. And how long have you been a member of that group?

A. I think you have to be there I think it's eight or ten years before they give you a tie.

Q. And do they give you a certification?

A. Yes.

Q. And is it something that you have to update annually?

A. You have to be invited to join. You don't just -- they invite you.

Q. Okay.

A. And usually they require a degree. I gave them my background and they said, Hey, you're in.

Q. Okay.

A. Of course I also belong to the ACS, American Chemical Society; International Society of Pharmaceutical Engineers; International Food Technologists; Cosmetic, Toiletries and Fragrances Association -- we also make cosmetics -- you know, District Export Council.

Q. What kind of associations are those, the ones you mentioned, the cosmetic association and --

A. Well, if you're going to make cosmetics or perfumes or anything of that sort, then that's certainly

13

an organization you would belong to.
And of course we kind of specialize -- we make all kinds of products. We don't determine that. Our customers ask us what they want. But we do a lot of nutraceuticals, which we were the first company to make them, mostly because physicians were asking for those kinds of products.
Q. Well, just going back, the associations, though, those are trade associations? Do you get --
A. Trade associations. Some of them are quasi.
Just like Food Chemical Codex, that's made up of government and industry where they set the monographs for each ingredient and what it's used for and whether it's safe to use or what the -- what conditions it might not be safe.
Q. Okay. And going back to the case of the State of New Jersey versus Mr. Shair -- was it Shair, was his name?
A. Yeah.
Q. In terms of your testimony, were you testifying just about what you had done for him?
A. What I had done which was confirmed by the tests that they ran.
Q. Okay. So were you testifying just about the effects of the drug or more of the factual --

14

A. It's not a drug. Threonine is an amino acid. It's a food.
Q. I apologize. Yeah.
A. Okay. And that can get pretty tough because, you know, who would know which is which. Sometimes there's a thin line.
But mainly that what I supplied was L-threonine. I did label it correctly. What he relabeled it as was out of my control. The only thing that I could -- if you ask my opinion, the only thing I could say he was guilty of is poor judgment.
Q. So then your testimony wasn't really about the effects of the amino acid, for example --
A. No.
Q. -- or efficacy; it was about the facts of the actual --
A. The similarities in chemical construction.
Q. Okay. And were you actually qualified as an expert or you were just called as a witness?
A. I was called as a witness in the -- in his trial.
Q. Okay. Well, in terms of giving testimony based on your expertise in the pharmaceutical/nutraceutical area, have you ever given testimony in that regard?
A. Probably over the years, yes, but you know, I

15

don't remember them all and I didn't save the transcripts.
Q. Okay. Well, just that in terms of, you know, your purpose here is to be as an expert --
A. Yeah. I'm called quite often. Like insurance companies will call me and ask me if some nutraceutical, would that -- they're trying -- someone is trying to get it covered by insurance and would that just be justified, and I said, well, theoretically it may not because it's not intended to cure or help to cure a disease.
Nutraceuticals cannot be claimed to cure or help to cure a disease. That's the definition, the legal definition.
Q. Okay. In regards to -- well, let's go into what your company -- you said -- you mentioned you have two companies; is that correct?
A. Yeah. Dews Research Laboratory only makes products for other companies to sell, period. We don't get involved in the marketing. We've got enough to do just making the products.
Q. And your other company, what's the other company?
A. Now, unfortunately, it's kind of the analogy would be like the farmer. The farmer doesn't get much

16

for his crop, but the company marketing the food does because they have the advertising behind them.
The same thing with us. My customers make a tremendous profit. I don't make that much. I have to compete with companies that aren't as careful about the quality, so price is definitely a driving factor.
Now, the profit is in the marketing. And there are a lot of products which I became familiar with and a lot of physicians saying, Yeah, I want you to make this product, and I'll say, Well, this is the minimum order, and then I can't afford that. But I hear that enough and I say, Hmm, there's enough demand for that product, why not --
Q. Okay.
A. -- put it in a company, so we formed a separate company, and that's all they do is market -- it's one of my customers.
Q. What is the separate company? What's it called?
A. It's Dews Twenty First Century Products.
Q. And that company actually sells products.
A. Yeah. My wife and daughters run that company. I don't -- certainly I -- the gentlemen would probably agree with me if they've been married. You don't tell your wife how to run her company; you advise her.

17

Q. And can you just give me an example of what kind of products you sell?
A. A lot of nutraceuticals, a lot of cosmeceuticals in this country because they're much easier to make and they're much easier to sell. The profit margins are reasonable.
It's a good business to be in if your point is to be in business. And I have to be. I have to generate the cash flow.
Q. Well, are you involved in creating the products, or is it just your wife and your daughters?
A. They market. I do most of the creation and -- because I get the calls and then -- where they're not willing to put up enough money to make a minimum batch, so when I get enough calls, I say, Barbara, you know, there's a lot of demand for this.
And a lot of times they're old drugs that are no longer drugs.
Q. And Barbara is your wife?
A. My wife.
Q. Okay. Well, can you tell me -- you've used the word "nutraceuticals" before. Can you just define what those are?
A. Yeah. Basically they -- if you were to merge food supplements and pharmaceuticals together, you would

18

get nutraceuticals.
If you merged cosmetics and pharmaceuticals together, you would get cosmeceuticals. That's what I was going to a while ago.
The difference? Well, of course, nutraceuticals, you ingest it, and cosmeceuticals, you put it on the outside. That's the nuts and bolts of the actual manufacturing of nutraceuticals, cosmeceuticals, pharmaceuticals, OTC or prescription. It's the same. The ingredients are different, but the technology is the same.
Q. Okay. So can you give me an example of a nutraceutical?
A. Yeah. Right now, a very popular thing is to extract out certain chemical compounds that are in many foods, and this is interesting because, well, is it an herb or is it a food. Well, the only difference is in what you call it.
Q. Okay.
A. Now, does the herb do anything or does the food do anything? Well, in a roundabout way, it's not the herb or the food that's doing anything; it's the chemicals that exist within that. And that's why we have to be able to analyze these things, to measure, to see if that chemical is there, and that's pharmacology.

19

That's what I do.
I received my basic scientific training. I took the courses in chemistry, physics, biology, all of this, pretty much in premed, but I went this direction.
Then you take that and you -- it's the chemical that you want. You have to be able to analyze it.
Now, a lot of times we'll take that food or that herb and we'll start separating it. We take it apart. That's the science of pharmacology.
Now, I received my basic education and then I worked within companies, and I do work with a lot of universities with their research center and their scientists, and so I was trained after that by pharmacologists, mostly European, how to do this profession.
Q. Okay. Well, can you tell me what kind of nutraceutical your company might produce?
A. Sure. Well, popular when I started in that -- and this kind of gets -- and I apologize for that. It's not an easy question.
Q. No. But just --
A. Hey, we've got five minutes. Tell me how to do a brain surgery. No. It doesn't work that way.
But anyway, I was talking about one in particular, and that's the anthocyanins. These are

20

things which have an antioxidant property. And they exist in a lot of foods, particularly fruits, but they also exist in other foods. And the chemical compounds are very much identifiable. You can measure them.
Now, we take that whole food, and what's the most largest percentage in there? Water. Is that a chemical? Is that the chemical we want? No. So we get rid of the water.
The second thing, well, fiber. Does fiber? No.
We're looking for this chemical. By removing things we increase the level of the chemical. This is traditional pharmacology. This is just standard -- it's Pharmacology 101.
Q. Okay.
A. Okay?
Then we increase that level so that that could be put into a tablet or a capsule or in a cosmetic or whatever, and it has a benefit.
Does it rise to the level of a drug claim? Probably not.
Would it be beneficial? Probably would.
Would it hurt anybody? That's the first rule. No.
Then why not do it. I guess I'm just a stupid Texan, but it makes sense to me and evidently it makes

21

sense to a lot of people. This is a multibillion-dollar industry now.

Q. Okay. Well, I know you have a lot to share, so I'm going to try to keep --

A. Okay. You asked me and I think --

(Discussion off the record initiated by the court reporter.)

BY MS. PAYNTER:

Q. You were mentioning you need -- when you're preparing nutraceuticals or pharmaceuticals, you need to make sure that it's safe?

A. Uh-huh.

Q. And how do you go about doing that?

A. Well, the first thing we look at is the herb itself. And there is data published, easily found, that tells you exactly what's in it. Beyond that, it tells you what it should do, what properties that chemical would have if used externally or internally. That's published. It's usually backed up by clinical data.

Does that clinical data rise to the level that the Federal Trade Commission would say it substantiates the claim? Maybe not. But there certainly is data, and it tells exactly what this should do and at what level.

22

Q. So when someone calls you to develop or -- do you develop the product or you just --

A. I put it together. Yeah. I make it.

I'm sorry.

(Discussion off the record initiated by the court reporter.)

BY MS. PAYNTER:

Q. When someone calls you or contacts you to make them a product, what are the steps that you go into to say whether you could make it or not?

A. First I go to the references which are published. There are quite a few of them.

As far as chemical and structure and how to analyze them, that's in the Merck Index. It's an international compilation of almost any chemical that you could think of for any use, and it tells you what it is, what the history of it is, what studies have been done on it, how you can identify it in your laboratory, everything there is that you'd want to know about it.

Then you go into the different -- there's the Physicians' Desk Reference. And there is one for prescription pharmaceuticals. There's also one for over-the-counter drugs. There's also one for herbal products. And as a matter of fact, there's one for

23

veterinary products.

So right there, you would go to the PDR, which is privately published but semiofficial in that this is the reference physicians use in the United States about that particular herb or that particular ingredient. And right there it will tell you what it is, what the active chemicals are.

I've already determined what the active chemicals are. Now I'm going to look to see are those dangerous and, if they are dangerous, at what level, because a lot of things can be harmless at a lower level and very dangerous at too much.

So -- and then other times the active chemical that we find in an herb and the customer wants to use another herb, are they compatible. One could negate the properties of the other, so we have to determine that. And there also the data tells us what level it's normally used.

So -- so -- and it will tell you the whole herb or the extracted herb or the concentrated herb.

And so all that data is published. It's published in the PDR. It's published in the German monographs, the Chinese monographs, the British Pharmacopoeia.

A lot more herbs are used by the rest of the

24

world than are used in this country.

Q. Okay. So when someone asks --

A. Officially.

Excuse me.

Q. When someone asks you to make a product and you do that analysis, do they tell you why they would like to create this particular --

A. What we run into a lot is they're looking at it strictly from marketing and people are asking for these herbs and a lot of times you say, Well, why do you want to use that combination? Well, someone told me that's good stuff. Good stuff in what way, you know. That -- so a lot of times we find what's driving the request is more hype, and that does occur, so we want to make sure to get rid of the hype.

Q. And how do you do that?

A. By looking at any incompatibilities, any possible harm, and then we have to say, well, do not exceed this amount, you know, you better put that on your label. And by doing our due diligence, that's what we do. We're not involved in their marketing, but I do have to have a rough idea of what they're trying to achieve and why they're trying to achieve it.

Q. Do you have anyone ever contact you to make a product to treat cancer, for example?

25

A. I've -- off the record, I always tell them, you know, don't even mention that word to me. You know, you're not doing yourself any favor. You're not only shooting yourself in the foot; you're slitting your own throat. This is the surest way in the world to make sure that product idea never sees the light of day. Keep it simple.

Q. And why do you -- well, can you just elaborate why you say that they'd be shooting themselves in the foot?

A. Because I know how our government views this sort of thing.

Q. How do we -- can you just tell me how we view that sort of thing?

A. Well, you have to be -- a study was done by Tufts University for the FDA, what is the average cost of a new drug approval, how long does it take average and how much does it cost. I can remember when it cost a thousand bucks, but I'm an old man. Today the study found out five years and $1.4 billion.

How much do you have to sell that product for if you're going to gamble? You may not get approved. You may go through phase one, phase two, phase three, phase four, any number. How much oversight is enough?

So the worst thing you could do is get this

26

approved as a drug, if that's the product you're trying to do, do you have that kind of money to gamble.

Q. But if someone -- but you said if someone calls you and they might say something about cancer and your advice would be to them --

A. Don't ever mention that word to me again or I'm going to drop you so fast, it will make your head swim.

Q. And why is that?

A. Because I know it's a very negative thing. And I can see both sides of the argument. But if it helps them, well, yeah, I understand how you feel about this.

The problem is that the public's and the government's interpretation of the word "cure" is totally different. To the public, if it makes me feel better psychologically or actually, it's a cure. To the government, that's not so.

Q. Okay. And --

A. You might as well be speaking two different languages.

Q. So in your experience, the government's idea of a cure is at a higher level than the average person?

A. It's at a level that they set. The government -- governments set and bureaucracies set whatever rules they set. They're doing this as Congress dictates them to do or as they understand what

27

Congress dictates them to do. And that's it. That's the rules.

I don't agree that wearing a seat belt is necessarily going to save my life, but I'll guarantee you I don't want to pay the $200 fine.

Q. Okay. So with respect to cancer then, your view is the government doesn't want -- doesn't allow people to say that they have products that cure cancer?

A. They have certain rules and they are the police, and you obey the rules.

Q. Okay. Well, in your -- is it a laboratory? Is that what you have?

A. Yes, that's exactly what it is.

Q. In the laboratory do you also -- do you test drugs at all?

A. We do test a lot of things.

And keep in mind, what's a drug in this country is usually not a drug in any other country. The United States is totally at odds with the rest of the world because I manufacture -- over half of my business goes overseas, and every country is different.

Q. Well, in this country, what is -- what would -- in your experience, what is considered a drug?

A. Well, it's something -- a drug or a pharmaceutical, I mean, that's what the proper name

28

should be. You also use the word "drug" for illegal street drugs --

Q. Right.

A. -- so you have to make that -- but the claim is that it cures or helps to cure a disease, and that we just don't do, will not be involved in that. And if we see that one of our customers is doing it, we will advise them that I would stop doing this if I were you.

Q. Well, then in terms of a drug or pharmaceutical and the testing of those, do you test those? Do you test drugs in your lab?

A. We test to see if that chemical compound that is in that herb or that food is actually there and what the level is.

If you're going to say it in your documents, which they prepare their own labels from that, then they need to have that information.

Q. And so you would provide them with a written statement --

A. It has so much of this chemical compound in it, and we have certified that, usually done with a certificate of analysis, and we prepare the certificate of analysis.

Now, keep in mind all these -- no other country has nutraceuticals, only the USA, so in foreign

29

countries we have to submit the documents for a new drug approval in their country according to their regulations. They're not interested in ours.

As a matter of fact, you insult them to say that they don't know what they're doing.

Q. Well, have you ever conducted any controlled studies at your --

A. Not in a clinical -- I'm not a clinician. I don't practice medicine. I don't practice any part of healthcare itself. I'm interested in making the product and trying to make sure that it's probably safe for its intended use.

Q. Okay. Are you involved in the labeling of the products?

A. Very seldom. And we prefer not to. I try to do that as best I can for my wife's company, and sometimes we will help to find a printer who can print the labels and we try to go through the -- I'm very familiar with Title 21 of the congressional Federal Register and I have to know that and I generally know it better than most of the people inspecting me because I've been at it longer.

Q. And you mentioned before you provide a certification for the products you --

A. The certificate of analysis, depending on what

30

each country requires.

Q. Do you maintain those records?

A. Yeah.

Q. And how long do you maintain records for?

A. You keep records forever.

Q. Okay.

A. You keep samples of every batch of every product and every ingredient that you produce yourself because we do that, we make some of the ingredients themselves, and extraction is a perfect example. But those samples are kept for six years because most of the dating we put is five years.

Now, I know that dating is not required on a nutraceutical in the United States, but it is in the rest of the world, and nothing is sold only in the United States anymore.

Q. So dating, what does that refer to?

A. You put a date, best before, and usually we use five years. And then the Title 21 says whatever date you put plus a year, and that's six years.

Q. And so that's what you put on the certification that you send to the -- to the --

A. That it has been, we've done an analysis, the active ingredient that we're suggesting you could put on the label has been analyzed in our laboratory, and we

31

can certify that it's there and we can certify as to all the other physical characteristics.

Q. Okay. Well, as I mentioned before, this is a case against a company called Daniel Chapter One --

A. Uh-huh.

Q. -- correct?

Are you familiar with that company?

A. No. Not until this came up.

Q. Are you familiar with the owner of the company, James Feijo?

A. Never heard of him.

Q. Or Patricia Feijo?

A. No. I think they talked to me on the telephone since this has come up.

Q. Okay.

A. That was my first time I ever heard of them.

Q. Was there a reason specifically why you were retained as an expert in this case?

A. Not a lot of companies do this. And you wonder, well, why do you do this, why don't you -- it's -- the industry in this country has moved to the point some years ago that the pharmaceutical industry and the healthcare industry is pretty well dominated by the big international conglomerates. The little guy is really just not a player anymore.

32

Well, if you're going to be a little guy, what can you do. Well, when physicians began to ask for me for -- they said, You know, we want vitamin C tablets. I said, Why don't you send them to the health food store, or even the pharmacy has a department that has that. And the answer was: We want pharmaceutical quality control in these types of products. We want to know that it goes through a more rigorous manufacturing and quality control and quality assurance.

Well, we were already making pharmaceuticals, so we never really changed anything.

Now, this did not make us very competitive in the nutraceutical field because we're competing against companies that don't do that.

Interesting enough, since the FDA put in their new GMPs, our business has shot up a thousand percent.

Q. And what's a GMP?

A. Good manufacturing practices.

Q. Oh.

A. These are the steps that are required to assure the quality and that the product is made the way it should be. And actually they call it now CGMPs, current good manufacturing practices, because they do change.

And I know we have to do certificates of free

33

sale for most of the countries, foreign countries, and that we have to have the agency that oversees our operation directly to certify that this product is freely sold throughout the United States and is approved to be sold and that the company has been inspected within the last year and found to be in compliance with all of the regulations, and we are.

And we have the TDH there, and every once in a while we see the FDA that kind of follows up, usually not on the whole inspection, just one or two questions the TDH was not experienced enough to know the answer to, and that happens quite often.

But we get those certificates. We've never been turned down on them. And they generally state that we are in significant compliance, which means we go beyond what most companies do.

Q. And is that why you were retained as an expert in this case?

A. I think so.

Q. Okay.

A. Because I do have knowledge of herbs. I do have knowledges of where you can find the references. I know they are widely published and very easily obtained.

Q. Well, has your company ever created products for Daniel Chapter One?

34

A. No. Not that I was aware of.

Q. And what products of Daniel Chapter One are you familiar with?

A. Well, since this has happened, I understand they have a product called the 7 Herb Formula, which I recognized because it's based on an old pharma known as essiac, which is four herbs that were used, the story is -- and I don't know whether it's true or not. Maybe this is an urban, you know, story.

But the story is a nurse in Canada -- I believe she was from Quebec, judging by the spelling of her name -- created these four herbs that she knew that the Indians living in that area or at least she said had used these herbs and that she recommended it for cancer. I was aware of that.

Now, does that mean I can't touch it because someone else misused it? No. It just means don't mention it for cancer. That's all.

And I was asked by a gentleman out of Dallas if I could make that product. He didn't know where to get the herbs or what proportions to use, though it's published. You just need to know where to look. And then he said okay. And I told him, I said, Well, here's where to get these herbs. I can even sell you little bags of it, you know, if that's what you want, and I can

35

put it together in the right proportions.

And then he said, Well, there's some other herbs could we add, and then we kind of -- he had suggestions of other herbs, and I suggested a few things that you might want to put with it, not saying what it could be used for but would that be synergistic, would that be a good combination if someone would strictly want it for the herbal purposes, and that's how they came up with the 7 Herb.

I never heard any more from him after that. And I've learned since then that his customer was Daniel, but I didn't know that until this came up.

Q. So did you -- did he actually have an official account with you to create that --

A. We had made a few products for him in the past, and he said, I'm going to ask you to do something a little different, can you tell me where to find these herbs and can you give me some direction on how much to use and if they're safe to use.

Q. And I'm sorry. His name was?

A. Bill Maclean.

Q. And do you know -- was he a doctor?

A. I don't think so. I think he called himself that, but as I started this whole thing, that's more respect than it is official title.

36

Q. Okay.

A. And you can call yourself a doctor.

Q. Okay. Do you -- did he work for any specific company that you're aware of?

A. He had his own company.

None of my customers work for me.

Q. And you mentioned that you talked to the Feijos since you've been --

A. One telephone call, and that's the first time I'd heard their name.

Q. And had you discussed 7 Herb Formula?

A. Not with them. You know, I put this together for Bill Maclean. I didn't know what he did with it. And we didn't -- after we did that once or twice, we never heard from him again on the subject.

Q. So -- well, I guess the best thing we can do -- in preparation for today, for example, did you look at any documents before you came in here today?

A. Not much. As I told Mr. Turner from the start, I will not testify as to any of their marketing because I don't know anything about it and I'm -- that's not what I do. I make products. That's all.

Q. You will not testify -- well, will you testify --

A. As to the claims or counterclaims or -- I'm

37

just -- that's not what I do. I'm not -- I don't know about that and I don't want to know about that.

Q. So are you willing today to give an opinion about the claims that were made by the company?

A. No. I don't even want to see the claims.

Q. So -- excuse me. Off the record.

(Discussion off the record.)

(Recess)

BY MS. PAYNTER:

Q. Before we went off the record, I was asking you whether you had ever seen Daniel Chapter One's advertising; correct?

A. I saw it after this, after I was asked to testify. I saw their Internet site, and the only thing I looked at, what is the 7 Herb Formula. I need to know what herbs they're talking about.

Q. And are you aware that the 7 Herb Formula is recommended to be used with people --

A. I'm not aware of that.

Q. Can you hold on? Hold on.

A. I'm sorry.

Q. When you looked on the Web site, did you see there were statements about 7 Herb Formula being --

A. I made a --

Q. -- being used --

38

(Discussion off the record initiated by the court reporter.)

BY MS. PAYNTER:

Q. -- in connection with cancer treatment?

A. Because of my role in this whole process, I was very careful to make sure I need to know the names of the seven herbs, period. I will not look or make any determination of anything else. That's not what I'm hired to do.

Q. Well, with respect to your knowledge about herbs, are you familiar with the way herbs have been studied by scientifically or otherwise for the effects of the herbs, the chemicals in the herbs?

A. That's the question? Okay.

Yes, I am familiar with what has been published on the effects of these herbs.

Q. Okay. So we'll talk about in that respect. Is that okay?

A. That's it.

Q. Okay. When -- you mentioned also that you had spoken to the Feijos after being --

A. They got on the --

Q. -- after being retained in this case.

A. Yeah. They -- one of the times that Mr. Turner or another attorney from his office was asking me

39

questions about this and I was responding, they got on the line and introduced themselves. That's the first time I had ever heard of them.

Q. Well, did they mention to you that they were being prosecuted for making claims about cancer?

A. They didn't have to. Mr. Turner had already told me that.

Q. Okay. So are you prepared to talk about how these herbs may or may not benefit somebody who has cancer?

A. No. I'm willing to talk about what these herbs have been used for and what studies have been done, period.

Q. Okay. I'm going to have the court reporter mark the Federal Trade Commission's complaint against Daniel Chapter One, which I'm going to ask you some questions about 7 Herb Formula. Okay?

So she's going to mark this for us.

(Dews Deposition Exhibit Number 1, complaint, was marked for identification.)

THE WITNESS: Okay. I need to ask a question here. Are you asking me to study this form that you just got through --

BY MS. PAYNTER:

Q. No. I'm not going to ask you to study it.

40

A. Okay.

Q. Okay?

But we'll use it as a reference as we go, asking some questions about the herbs themselves.

A. Okay.

Q. Okay?

A. As I've said and I told Mr. Turner from the start, I will not testify as to the charges that the FTC has made nor as what your defenses, so that's your job. I'm only -- can testify as to what the herbs are and how they're used.

Q. Okay.

A. So therefore, I give this back to you. I refuse to read it because I think it has the charges that you made. If I wouldn't do it for him, I'm not going to do it for you either.

Q. Okay. But would you be willing just to look at -- you looked at the Web site already; right?

A. No. Only as to the herbs that are in the 7 Herb Formula.

Q. So I'm going to show you a page that was taken from the Web site. You don't have to read the charges. You don't have to read the charges, but it does have the list of the herbs that are in here, and I wanted to go over some of the statements about the herbs because you

41

are a specialist in the herbs and what they do. Correct?

A. I know what the herbs are and I have them memorized, so ask me the herb, and I'll tell you what's been published on it. I don't have to read that.

Q. Well, I would just like you to take a look at it with -- and it's not -- you know, it's not making you liable for anything, but you have been put forward as an expert on the herbs, and it is appropriate for me to show you a reference that we can use here in this deposition.

A. I in my opinion --

Q. So if you want to talk to Mr. Turner about whether you want to continue here today, that's between -- we're happy to step out and allow you to discuss that.

A. Okay. I'm going to tell you I've been around this long enough, I know what -- how these things go.

I know what the herbs are. I know what they've been recommended before officially. I do not know what they have -- what you allege they said.

For me to read that would be sheer speculation on my part. I'm not an expert in marketing, nor am I an expert on how the rules are promulgated by the Federal Trade Commission, and so therefore, I'm not

42

interested. I'm not going to read what you have said you charged them with.

Q. All right. Well, let's see if we can do it without the exhibit. Okay?

A. Right.

Q. We'll make our best effort.

Well, first of all, you said you are aware of what's in 7 Herb Formula.

Can you tell me what's in it?

A. Yeah. I think -- and I may not get these in the correct order, if there is an order -- there is one called sorrel. And this is a -- it's a member of the Rumex family. We refer to it as dock or yellow dock.

Herbs have a lot of different names, even different plant genus names from one country to another.

And it's generally used for inflammation. It does help to reduce inflammation. It does have a very mild laxative action if you take enough of it. If you don't take enough of it, it doesn't have any such action. And mainly that's what it's used for.

Now, this -- do you want me to take them one at a time?

Q. Well, first I'm asking you to tell me what's in 7 Herb.

43

A. Right.

Q. Okay?

So can you just please tell me what are the seven herbs in 7 Herb Formula.

A. Yeah. Let's just go with the names first.

Q. Yes, please.

A. Sorrel is one. Sheep sorrel I think is the common name.

Slippery elm.

Burdock root.

That's three.

Rhubarb root.

That's four and that's the essiac. To that they have added Siberian ginseng, watercress, and cat's claw.

See, I do have them.

Q. Yes. You got them right.

So why don't we talk about first burdock root. What is burdock root?

A. Burdock root used in sufficient quantities can give a laxative action, although used in less it would not. It's used for inflammation.

As I recall, I think the German monograph makes the statement "used for purifying the blood." Well, I suppose that would be true in Germany but not in this

44

country, although I think it's in the PDR also, the herbal PDR.

So those are the general uses for it, to reduce inflammation and that sort of thing.

Q. Do you know whether burdock root has ever been used in the treatment of cancer?

A. I'm sure it has and I'm sure it was used informally. It could have been used by a medical practitioner, but I don't know that they would be too verbal about the fact.

Q. Are you aware of any studies that have ever been done on burdock root and its treatment of cancer?

A. I don't recall seeing cancer mentioned specifically, only the general properties.

Q. And sheep sorrel you mentioned.

A. Uh-huh.

Q. Can you tell me again what sheep sorrel is?

A. It's in the Rumex family. It's also referred to as dock. It's also antiinflammatory. It helps as a diuretic to get rid of excess moisture content.

You could probably make the stretch to say, well, with cancer don't you have excess fluids. I suppose, but I've never seen it specifically stated that way.

Q. Well, have you ever seen any studies done on

45

sheep sorrel --
A. That it reduces inflammation.
I'm sorry.
Q. -- studies of sheep sorrel in connection with the treatment of cancer?
A. It -- only that it reduces inflammation.
Q. And so can you say what kind of studies have you seen in connection with sheep sorrel?
A. Yes. It's in the PDR for herbal drugs. It's in the German monographs. It's in quite a few books that are published for physicians' references.
Physicians are very interested in this sort of subject because it's become very popular, so their patients are asking for this.
It's in the -- I believe it's in the Chinese Medica which is the official, and so -- and in the British Pharmacopoeia it's listed.
Q. Are you familiar with whether sheep sorrel has ever been used in folk -- let's say, as a folk remedy for cancer?
A. Yeah. Now, there, any of these seven herbs could have been used folk-wise for that, but not officially, not bluntly.
Q. Well, when you say "not officially," you mean in terms of the scientific studies done?

46

A. Right. Generally they speak in terms -- anyone who's a health practitioner, whether they're a physician or even a naturopath, they're well aware that certainly in many conditions which might be considered to be diseases there are symptoms that -- such as excess fluid retention in soft tissue, that some of these things will reduce the inflammation in soft tissue, but they're not going to say it helps with cancer, other than folk medicine.
Q. Okay.
Okay. The other -- the other component -- another component is Siberian ginseng or ginseng.
A. Uh-huh.
Q. Can you describe what that is?
A. Sure. Sure. It's -- I'm trying to remember the plant genus name, but anyway, it's -- Eleutherococcus. It is used mainly to -- for energy. It's an energizing -- it contains chemicals that tend to energize. But I've never seen it stated that it helps with cancer, just that it energizes.
Certainly if you're on chemotherapy or something of that, your energy levels are pretty low, so it might be beneficial. It certainly won't hurt. It might help.
Q. Are you familiar with the statement that

47

Siberian ginseng produces saponins or --
A. Yeah. The saponins are plant hormones, phytohormones, and almost any food has these things in it, and they have effects upon the body depending upon which one you're using.
Q. Would they have effects on tumors?
A. Might. Certainly a tumor would require that a lot of moisture go into that area and maybe more than the surrounding tissue. Therefore, if you were to reduce the moisture content, it might, it could be helpful, but I've never seen it stated exactly that way.
Q. Have you ever seen any studies that have found that Siberian ginseng reduces tumors?
A. No. Just that it reduces in -- or it gives a person more energy and which I think is mainly what it's used for.
Most of these herbs have a lot of different uses that have been used. Some of them were, you know, like you say, native or traditional and some were studies, and they tend to get kind of mixed up.
Q. Okay. Another component is cat's claw, as you mentioned.
A. Uh-huh.
Q. And what is cat's claw?

48

A. Cat's claw's plant genus name is -- oh, what is that? Tomentosa is the second name. I can't think of the first name now. I didn't get enough coffee this morning.
Q. Okay.
A. But anyway, it's used in South America. It's supposed to support the immune system.
Q. Have you seen studies that have found cat's --
A. The PDR says so and also give the bibliography of the studies.
Q. Have you ever seen any of those studies?
A. Yes.
Q. And do you know what kind of studies those were? Were they double-blind studies?
A. Most of them were more single-blind, although some were double-blind, and I'd have to go back and look at it to see exactly which ones were and which ones weren't.
But yes, it does seem to have an effect upon supporting the immune system.
Could it be used by itself? No. Of course not.
Would it be helpful? It might would.
Q. Well, when you say "could it be used by itself," you mean to treat cancer?
A. For any particular condition, and I'm not

49

singling out cancer.
Q. Why do you say it couldn't be used by itself?
A. If the only thing it's doing is supporting the immune system, the word "support" itself means it has to work with something else, so that right there would negate such a claim.
Q. Another component is slippery elm.
A. Slippery elm again helps -- it's emollient; that is, it helps tissue. It helps to get the moisture, excess moisture, down. It's very soothing to the lower tract.
It's very high in sugars, and sugars are very good. And there's quite a few sugars; there's not just one. And that's -- it's used a lot in cough syrups because it helps to get the excess fluids out, and so it -- that's its purpose.
Q. Have you ever seen any studies showing that it can help with, for example, stomach cancer?
A. No. I've never seen that specifically in those words.
Q. Well, in other words?
A. Well, if it reduces inflammation of the stomach, whatever the condition is, it might be helpful.
Q. But as far as you're aware, you've never seen

50

any actual scientific studies done that would show that it's helpful in any disease.
A. No. Helpful maybe, but curing, no.
Q. Okay. Thank you for that clarification.
Another component is watercress, and what would that be used for?
A. Watercress is the flower nasturtium and so of the mustard family, and it's used mainly to reduce inflammation.
Q. Are there any studies, scientific studies conducted on --
A. There are studies on all of these but not usually pertaining to any particular disease but only to their overall effect upon the body.
Q. And in your business you have to be familiar with those studies?
A. Oh, yeah. The first thing I've got to do.
It was real interesting when we started doing the Chinese herbs because they have a totally different way of looking at healthcare particularly, and it sounded so foreign when the first thing I had to understand is how does that relate to western medicine. And as I got into it, the only difference was the terminology or most of the differences was in the terminology. There's some things that are different,

51

you know.
But they talk about the upper burner. Well, that's your sinuses and your lungs. The lower burner is your stomach, you know. But on first when you read the names, you know, that -- what are they talking about. Then as you dig into it, oh.
And this is the sort of thing -- maybe this is why I ended up doing what I do. I love to study and learn things.
Q. Well, as we go on, the last component is turkey rhubarb root and --
A. Rhubarb used in sufficient quantities has a laxative action. And if it's low quantities, it wouldn't, enough, it would. It depends on the person. It depends on the person's psyche at the time that they -- or physiological makeup at the time that they use it, but it does -- and it is listed also as a blood purifier, and I guess if you get a mild laxative action, that could be said to be one way to do it.
Q. One way to do what?
A. If you remove excess feces from your intestinal tract, that probably would help to purify your system.
Q. Okay. Well, have you ever seen any studies of rhubarb root as it relates to treating cancer?
A. Only in a native, you know, and in traditional.

52

Q. Traditional medicine?
A. Could you call it medicine?
Q. No.
So when you say in the native folklore -- is that what you're saying?
A. Yeah.
Q. But in terms of the scientific studies, have you ever seen any on rhubarb root?
A. Not really.
Q. Okay.
A. The only thing it could mention is purifying, but it wouldn't specifically say for any disease.
Q. So what would be your opinion if a company were to make a claim that all of these herbs or in combination actually could help to treat cancer? Would you agree with that statement?
A. Well, certainly if someone were to ask me that, number one, I don't advise on that subject other than maybe my wife, but I would say, If I were you, I wouldn't go there.
That's just like you can get into your car and you can drive from here to another city and drive a hundred miles an hour and not get caught and not get a ticket, but does that change the law. If I were you, I wouldn't do that. You're just asking for a problem.

53

Q. Well, is it your view that there's any -- is there any truth in the statement that these herbs taken together could treat cancer?

A. Well, remember, you're talking about officially or in the opinion of the person --

Q. Just your opinion, not officially.

A. In my opinion, I don't know that it would rise to that level, but I don't know that it would be detrimental to use it.

Q. Okay. And just for the record, are you familiar with the product Bio*Shark?

A. Never heard of it.

But it's the typical kind of name they usually would use for chondroitin -- let's see if I can spell it. C-H-O-N-D-R-O-I-T-I-N -- sulfate, just like the mineral, S-U-L-F-A-T-E.

This is a -- it's a very complex carbohydrate and it's actually a protein-carbohydrate complex. It exists in many things, but it's particularly high in shark cartilage. And it does help your body to produce hyaluronic acid.

And studies have shown that it does help to lubricate the joints, and certainly being 73 years old, I have a need to lubricate my joints. I use it. It works. It's not a drug. It's not approved as a cure

54

for anything, but then it's not curing, is it? It's not getting at the cause of the arthritis; it's helping with the results of it.

Q. Well, are you familiar with the use of shark cartilage in the treatment of cancer?

A. No. I've heard that, but I've never really seen any data.

Now, there may be some out there, but generally when I see those, a mention of a disease, particularly cancer or weight loss, I shy away with whatever it's saying about it.

Q. And why is that?

A. Because I know it's just going to get you in trouble.

Q. Okay. Well, what about in terms of the truth of the ability to, you know, affect cancer?

A. I think at some point, whether you're doing what I do in making the products or doing what they're doing in marketing the products, what are you here for? Are you here to preach a sermon of what you believe? Are you here to help the public? Are you here to make a living?

I think number one it would be to make a living, number two and almost as close is helping the public, but that doesn't leave any room for preaching

55

sermons.

Q. Well, let's see.

Well, are you familiar with the product GDU?

A. No. I don't have a clue what that is.

Q. Are you familiar with the product called BioMixx?

A. No.

Q. When you went back to look at the Web site, did you -- to look at the herbs in 7 Herb Formula, did you get any information about the quantities of each component within it?

A. I don't recall that being in there. And since I had put the seven herbs together for Mr. Maclean, I knew what the quantities are.

Q. Well, what are the quantities?

A. Oh, I'd have to go back and look now. I don't have that in front of me, but I'm guessing that he continued to use the same proportions as they did before, which -- I also told him where to find the references. Hey, look them up for yourself.

Q. So did you have -- do you have records regarding the transaction with Dr. Maclean?

A. It's so far back, I'd have to dig to find them, but I probably could. I don't know. I really -- having been in business 35 years, I have a lot of records.

56

I've run out of -- I have to build buildings to store them, and a lot of them I just throw away.

Q. Do you remember if Dr. Maclean told you what the 7 Herb was going to be used for?

A. No. And I don't want to know.

Q. Okay.

A. That's not what I do.

Q. Did he ever come back to you and say, Can you just test the 7 Herb to make sure I have the components correct?

A. As I said, he said -- after I told him where to get the herbs and where to find the references on them since he didn't want me to make the product, I made up a few small but just the herbs in the right proportions in little bags, and I said, if you'll take this and put it in water and heat the water and brew a tea, then you can make the product, but know, if I were you, I'd add a preservative to it, you don't want this stuff mildewing on you, and advised him.

But if he ever tried to tell me any disease state, I would shut him up in a New York minute and say, I don't want to hear it. I don't go there.

Q. Well, you advised him to make it as a tea; is that right?

A. Oh, yeah.

57

Q. And why as a tea?
A. Because he said he wanted to make a liquid. A liquid is a tea. It depends on what you call it.
Q. So do you know, was he providing it as an actual like a powder substance or actual tea bags?
A. It's my understanding that he was brewing a liquid of some sort.
I think he wanted to test the herbs in those combinations to see if it achieved the result that he was trying to get, and as I said, I don't want to know what results you're trying to get.
Q. Well, could you use the combination of herbs as just something to put into like a drink?
A. Uh-huh, you could.
Q. Does it have to be --
A. It's just a food. It doesn't have to be a drug.
Q. Does it have to be heated to get any effects?
A. Well, if you want to get the chemicals out of the herb -- remember, they're bound up there with the fiber and other naturally occurring compounds. If you want to -- you know, that's the first thing we have to do is, when we look at the herb, what's in there that we're trying to get out and what is it soluble in it. That's how you separate it.

58

Fiber is not soluble in water, not even hot water.
Q. Okay.
A. That's pharmacology.
Q. Besides looking at the Web site to go over the seven herbs in here, did you read anything else in preparation for today?
A. I think you asked that and I've answered it. I made a point, I only want to see the herbs. I want to make sure it's the same herbs that I remember.
Q. Okay. But I think in your report did you go back -- you mentioned the German monographs and other --
A. I look at each herb, yeah, what's the herb, what are the different references that have been published on it, what do they use it for and what it's been indicated for officially and unofficially, at what levels. Again, all that information is readily available.
Q. So can I ask you, to your knowledge, are there any controlled studies regarding 7 Herb Formula and its effectiveness in treating cancer?
A. I've never seen any.
Q. Have you ever seen any studies that would say that 7 Herb Formula is effective in curing cancer?

59

A. I've never seen any, and if anyone tried to present them to me, I'd do the same thing I did here a while ago. I really don't think it's a good idea for me to look at that.
Q. And what about if there are any studies on whether it prevents cancer?
A. I guess a lot of things could, but I don't know of any studies.
Q. And are you aware of whether there are any studies showing that 7 Herb Formula inhibits tumor formation?
A. No. I had never heard of the 7 Herb Formula until this, this came up, so I really haven't had time to delve into it. And besides that, that's not what I do. I'm busy doing what I do.
Q. Well, with regard to the herbs in 7 Herb Formula, are you familiar with whether there are any studies that say there's anticancer activity in any of those components?
A. No studies, no. And you know, there might be some mention it might. Some physicians might have indicated it. I'm not sure whether it was a double-blind study or what because I really didn't delve into it.
Q. And then are you familiar with the studies that

60

are done to get drugs to market?
A. Oh, yeah. Yeah. I've done it.
Q. Can you just describe generally --
A. It varies from country to country, but generally you get a medical school at one of the universities, and I've participated in a lot of them.
I did the only one done on DHEA as a matter of a fact. I did that for Southwestern Medical. And we did the study.
And it has to be controlled. You have to set it up to where the physicians don't know which is which. You've got a placebo. Sometimes there's a triple blind where you might have three things. One of them will be the actual chemical itself. At that point it's not a drug because it hasn't gone through the studies. It's in the process yet. And then you make up a placebo which looks exactly like it. And the only -- and you have to label it for a study only and not to be sold.
And the only distinction between the placebo and the real thing is a lot number. And the only person who can know which is which within the physicians' side or the university or the physicians is one secretary. We prefer not to have the physicians know because we don't want them to begin to see results that are not really

61

there because they want to see the results and which is the placebo.

In my company, I don't know. I have one secretary that knows which is which that keeps up with that.

And then you compile the data that you got from the study, depending on how many respondents, how many people were in the study, and you analyze that data and then you say, well, this many under this lot number this is the results we saw and under this lot number this is the results you saw. Then we can say okay. Now, are you through, there's no more data coming? No. That's it. Okay. Now we can determine which is which and compile the results.

Q. And your company has participated in studies like that?

A. Oh, yeah. Yeah.

Q. In what kind of studies?

A. We made the active component. We made the placebo. We were asked to do this. We did it. There's not a lot of companies that do what I do.

Q. Okay. And what kind of -- you mentioned DHEA was --

A. Dehydroepiandrosterone. It's one of those phytohormones. It's -- it's a precursor to the anabolic

62

hormones. It could be any one of them.

And that's -- they say, Well, boy, that's the latest thing out. I said, That's old hat. Good Lord, I did that study twenty-some-odd years ago.

You don't know what it's going to turn into. It depends on how your body handles it.

Understand something, which is a misconception everybody has, including the government, no vitamin, no mineral, no drug, none of them do anything by themselves. Your body uses that to perform certain functions, mixes that or combines it with or metabolizes it with something else, and that has an effect that leads to a structure/function claim.

So getting the idea of, oh, well, yeah, this drug and it does -- no, it doesn't. It helps your body to do it. A drug does that and so does a nutraceutical. The difference is, a drug you can make a disease-curing claim, a nutraceutical you can't.

Q. 7 Herb Formula, is that a nutraceutical?

A. Oh, yeah. It would be classified as such, if you kept all your labeling and all your advertising within line.

Q. And has your company ever done any studies -- you mentioned the double-blind studies -- with regard to cancer drugs have you been involved?

63

A. No. We haven't been asked to do that. We don't do anything unless we're asked. And usually it's the university that's doing the study. We're just supplying the necessary materials to do it with and the control.

Q. And in terms --

A. And I have to fight with the physicians sometimes. I'm not going to tell you which is which.

Q. Well, when you reach -- before you reach the stage of giving actual drugs, what -- are you familiar with the stages that come before that, you know, the phase one, phase two trials?

A. It could run through as many as four phases and which is why our healthcare is so high, and so you see why people are turning to nutraceuticals, and a lot of them are old pharmaceuticals that are no longer pharmaceuticals.

Q. And in terms of phase one/phase two animal studies, are you -- is it your opinion that findings in animal studies can be extrapolated to --

A. In this country --

Q. -- to humans?

A. Oh, I'm sorry. I know the answer and I apologize.

Q. Okay.

64

A. In this country, animal studies are no longer the end usable result. You tend to go to human studies. You might start with animal studies. You want to see, well, you know, looking at this chemical structure and a potential for harm -- and that's the study of pharmacology. And you see why I can't get involved with too many things, because this is difficult enough in itself.

Q. Right.

A. -- looking at that, I think there's a potential here for harm.

Well, how much should I use? Well, we don't know yet, do we?

So let's try it on animals first. We can begin to get some feedback of if it's harmful and what levels to use. If we kill the animal, we know that's too much. If we get no results, that's too little.

So we begin to zero in on what is safe for an animal. Now, with that data, we can take that and see whether we want to go to phase two or phase three or whatever phase, because you may have several animal studies, and to see, well, now let's try it on humans. You know, we have a pretty good idea of what's too much, what's too little, and the fact that it's safe, it appears to be safe up to this point, and now we can

65

begin -- so by the time the humans actually get it, we've already done that safety.

Q. Okay. And so that now it's not proper to take results from animal studies to say that it works in humans the --

A. As a rule, that's not done -- in other countries it's still done -- because a funny thing has occurred here. People will spend whatever for their health. They'll go in debt, they'll sell everything they've got to stay alive a little bit longer.

At what point does the cost override the benefit. And that's a tough call. I'm not saying that anybody is right in this. It's a tough call. Other countries say the main thing is for the health of the public. In this country, well, I'm not saying it's right or wrong. I'm saying that's the way it is.

Q. Well, in terms of your knowledge of herbs, are you familiar with the -- with turmeric?

A. Yes.

Q. Or which is -- what's the active component in that?

A. The active chemical is curcumin.

Q. Yes.

A. Curcumin is very good at reducing inflammation, very, very good, and that's why the Indians put so much

66

of it in all their foods. It's also why it's a main thing used in allopathic medicine. It does reduce inflammation.

Now, can you say that reducing inflammation is a cure for any particular disease? No. But could you say that it might be helpful? Yeah, you could probably make that statement.

Q. And are there studies that have shown that curcumin is helpful?

A. Yeah. It is -- of all the -- and by the way, if you think that all of pharmaceuticals -- and I'm talking about prescription -- are not herbs, you're wrong. A lot of them are, and boy, I mean there's a list a mile long.

And you know, the point is, you're interested in a certain chemical compound, and where you get it really doesn't matter as long as you've got it. You can make it synthetically. You can find it in plants. These plants develop these compounds.

So yes, it has effect. Generally when we look at that, we're not interesting in curing cancer, we're interested in reducing inflammation. There's a distinction.

Q. Well, with curcumin, have you seen actual studies on humans using curcumin?

67

A. Yes. There are quite a few studies. It does reduce inflammation.

If someone were really doing a study or if I was involved in a study and someone says, Well, we want to do a study on curing cancer, I'll say, Well, then count me out. Because I think you have to start with you're trying to work upon the symptoms of the disease. We're not trying to cure the disease by working on a symptom of the disease. There's a big difference.

So if you want to do this study on curcumin to see if it does indeed reduce inflammation and to what degree and at what level can you get too much, if any, and at what level is too low, well, I talked about this a while ago, then count me in, but when you start trying to cure a disease when you haven't even figured out how to do anything about the symptom, I know I'm dealing with a bunch of amateurs.

MS. PAYNTER: Okay. Again, I'm just going to step out one second. I'll be right back. We're almost finished I think.

(Recess)

MS. PAYNTER: So I'm going to withdraw Exhibit Number 1 --

THE WITNESS: Okay.

MS. PAYNTER: -- and I would like to make

68

Exhibit Number 1 Mr. Dews' expert report.

(Dews Deposition Exhibit Number 1, Report of Expert Witness Jim Dews, was marked for identification.)

BY MS. PAYNTER:

Q. So, Mr. Dews, I'm handing you Exhibit Number 1, which is a copy of your expert report.

A. Let me get my glasses.

Here we go. Let's see what it is.

Yeah, this is -- this is -- was answering questions which they asked me over the telephone.

Q. Okay.

A. Yeah.

Q. If you can go to page 7, please.

A. Okay.

Okay.

Q. And I just wanted to ask you questions just regarding some things that are on here.

It says you're being compensated $35.00 per hour?

A. Yes. Uh-huh.

Q. Or 280 per day plus expenses; correct?

A. Right.

Q. And in section III it says "Materials Considered."

69

Do you see that?
A. Okay. Section --
Q. On page 7?
A. On page 7?
Q. Yes.
A. I don't see that.
Q. Do you see at the bottom?
A. Oh, this. I'm looking at the wrong number.
Q. Page 7, please.
A. Sorry.
Q. That's okay.
MR. TURNER: It's I think here (indicating).
THE WITNESS: Now we got it. I'll keep those in order. Yeah. Okay.
BY MS. PAYNTER:
Q. And it says "Materials Considered."
Do you see that?
A. Yes. Uh-huh.
Q. And it says that you reviewed the German monographs on herbs --
A. Right.
Q. -- in the 7 Herb Formula.
A. Yeah.
Q. And what is the German monographs on herbs?
A. Okay. The German government -- herbal medicine

70

is -- remained official there even when it stopped being here. And it's, according to the German government or their variation of the FDA, what can be used by a practitioner and what claims can be made for it. And that's -- those are the official laws in that country for using these types of products. The indications are spelled out.
Q. In reviewing the herbs in 7 Herb Formula as identified in the German monographs, were there any indications for use in cancer treatment?
A. I don't -- I don't -- generally speaking, in most countries that use herbal medicine, you just don't see that kind of claim. You see it reduces inflammation. It helps to purify the blood, you see that. You'll see -- but they don't mention a disease as a rule.
Q. Would it --
A. More the symptoms.
Q. So for example, they might say that one of those components helps reduce tumors?
A. It helps reduce inflammation.
Q. Okay. The next item says "Herbal Drugs and Phytopharmaceuticals."
Do you see that one?
A. Yeah. And that really is the same. The German

71

monographs are published in that book. And the reason why someone had to do that is because in Germany they speak and read German.
Q. Okay.
A. In the United -- it is published -- it was published in German and then republished in English so the rest of the world could read what they're saying.
Q. Okay. The next item is British Pharmacopoeia, and you have a notation here, "Burdock root is recognized as a drug if you're in England."
A. Right. And there are quite a few of the herbs in the seven herbs that are.
And the official listing of the British Pharmacopoeia is the Martindale. It's not the same Martindale you attorneys use. And that is the British Pharmacopoeia, and it's published by a publishing company but in connection with the British government. And it lists -- there's a lot of herbs listed in there and indications and uses and contraindications and how a physician would use it.
Q. And again, it would be in connection with saying treats inflammation or supports immune system?
A. Right. As a rule, that's what you do. You -- and a physician -- you're not going to go to that physician and he's going to pull out one pill and here,

72

take this pill and it will cure your disease. He has to use all of the tools at his disposal.
How am I going to go about alleviating your symptoms? Well, reducing the inflammation is certainly one of the things that you would do, but it doesn't cure the disease by itself.
Q. Okay. Well, in the British Pharmacopoeia, do you recall all of the herbs are listed in there?
A. Most of them are listed. There are a few that are maybe not as popular in some countries, and so they tend to get -- not make it.
Q. Okay.
A. The next -- oh, excuse me. Go ahead.
Q. The next one then, the USP or the United States Pharmacopoeia.
A. Right. That's everything that's officially a drug. And of course to be officially a drug you have to treat a disease, and certainly since we don't do that in this country with herbs, they're not listed as a drug, as a cure for any specific disease.
Q. So the components in 7 Herb are not listed in number 4; is that what you're saying?
A. Right. It's just I need to look at that to make sure they're not listed.
Q. I see.

73

Okay. And then number 5, the Complementary and Alternative Physician's Guide, is that an American publication?

A. It's American. It's published in America for American physicians.

And a lot of physicians are very much interested in this subject now because their patients are demanding it and they see some results.

So therefore, they needed a guide, and so a lot of guides began to be published, and this was one of them. This is a physician's handbook.

A medical doctor who says, Well, my patient came in and wanted burdock root. I want to learn all about it. If you look in that reference, it will tell you everything about that herb, every study that's been done on it and exactly what it's indicated for and how to use it and when not to use it.

Q. Well, as you say that, in terms of the seven herbs in 7 Herb Formula, are you aware of whether they counteract any pharmaceuticals?

A. Not aware of any looking at what I can learn about them. I don't see any problem. As I've repeated, it can't hurt; it might help.

Q. Okay. The next thing you looked at were the Physicians' Desk Reference?

74

A. Uh-huh.

Q. And what publication is that?

A. That's the Physicians' Desk Reference. It is published by Thomson Publishing but with -- under -- in control with, in relation with the government that they do go through there and check everything to make sure that there's no statements made that our regulatory agencies would have a problem with.

And there is a PDR for herbal drugs and again, just like the one above it, the Complementary and Alternative Physician's Guide, everything about it is listed, the active chemical that you're looking for, what the indications are, what the contraindications are, everything, and including the bibliography where you can look up the studies that have been done on it.

Q. Okay. Now --

A. And all seven herbs are in the PDR and one of them says for purifying the blood.

Q. Okay.

A. I suppose a laxative would do that.

Q. Well, now, number 7, I'm not sure what this statement means, so can you --

A. Well, they just asked me in general would you -- would you agree with the statement that no one could find out about these herbs or the indications. I said

75

that's ridiculous.

Q. Oh, okay.

A. And the only reason why someone couldn't find it is they never bothered to look.

Q. Okay. Okay.

A. Of course I guess you would have to ask, well, what are you trying to find.

Q. That's true.

A. Are we through with that one?

Q. Yes. I think we're through with this. Let me just make sure.

A. Okay.

Q. And I don't recall -- we were talking about Dr. Maclean before.

Do you recall what the name of his company is?

A. You know, I don't now. It's been a long time, and he's someone that just suddenly appeared and suddenly disappeared and I never heard from him again. A lot of them do that.

Q. Okay.

A. They get ahold of my name somehow and say, I heard that you know something about this and I need some help.

Q. Did Dr. Maclean contact you in connection with this case?

76

A. He did not. As a rule, someone like that would never, never mention the name of their customer. They're afraid I might try to steal it from them, which I wouldn't, but they don't know that.

Q. Okay.

A. I don't want the customer.

MR. TURNER: Let me just clarify. I don't think he understood the question.

MS. PAYNTER: Okay. Go ahead.

MR. TURNER: The question you said was did Dr. Maclean contact you in conjunction with this case.

THE WITNESS: Not in this case, no. No. Never. I haven't even heard from him in, gosh, 15-20 years.

MS. PAYNTER: Thank you, Jim.

THE WITNESS: I'm sorry.

BY MS. PAYNTER:

Q. That's okay.

Let me just check my last list, and I'll -- I think we're finished, but let me just check.

(Pause in the proceedings.)

Just -- I just want to ask you, are you familiar with what are called conventional cancer treatments?

A. Oh, yes. Yes. Very much so.

77

Q. And just a few would be --
A. Well, it's what's used in this country today, and that's fine. That's not my field. I'm not a clinician.
Q. Okay. I mean, do you have an opinion as to whether those treatments are effective or not or...
A. No. I really don't have any -- I guess they are. They use them. There must be a reason.
Q. And going back just to your experience, when did you start working in the pharmaceutical area?
A. Oh, it must have been 19 -- I worked for a wholesale drug company fresh out of school. Gosh, it would have been late '50s.
Q. And you worked for them as a salesperson at that time?
A. I worked for a wholesale drug company. Then I went to work as a detail man with the company, and they -- there are two kinds of detail men. This is kind of an inside thing, almost a joke. One kind is what we call the golf buddy. He's too dumb to ever really understand the chemistry. And let me explain that a little bit further.
As I said, the company I was with at that time, Wampole Laboratories, was a technology transfer company for MIT, Massachusetts Institute of Technology. They

78

had professors who were mostly European pharmacologists. Those were my teachers.
And what we would do, we would go in for training sessions. They hire bright, young people that they think can do this. And these old professors with their horrible European accents got up there and taught pharmacology, at least the part that related to the products that we would be detailing the physician about.
A detail person's job is to sit down with the physician and say, We have this drug, and this is what it's used for, and would you need -- if you have any patients that might have a need for this, we wish you'd think about us when you write the prescription.
And some of the guys just -- or gals, because it began to evolve about that time, they really never learned anything. They went out and partied the night before because we had these meetings in places like Bourbon Street in New Orleans, and so they were so hung over the next morning and too dumb to understand it in the first place or too lazy.
Q. Right.
A. And so they really never learned it very good. Oh, well, here's the card, you know, the product card (indicating). Oh, let's go play golf. And the

79

physicians tended to prescribe their items because they liked them.
The other group were product-knowledge people that really, really, really concentrated on understanding every word those old men were telling them and asked questions afterwards. That's what I did.
And usually those end up being moved to the home office. I didn't want to move up there, and so I ended up being in -- staying in Texas. We had medical diagnostics and pharmaceuticals.
I would go into a clinic, put my card in for each of the doctors -- there might be seven doctors -- and go to the lab and start -- and carry two detail bags and start detailing the lab technician on how to do the analysis and doing the blood samples and the urine samples, and then as the -- and I'd usually get a pizza or several pizzas, depending on how many physicians, and they would wander in during lunchtime and eat pizza and we'd talk about -- now that we talked about diagnosing it, now we're going to talk about treating it.
And I did that. And I led the company in sales every year that I was there, 10 or 15 years, because I worked my butt off and because I love to learn things,

80

so I dug into it. And from that I would get -- became very familiar with other detail men, physicians, pharmacists, hospitals, and they began to ask me would you join us in a new company, which we did, and I formed the company, got it on its feet, left and started my own company with the intentions of making only ethical pharmaceuticals. It's not what I was asked to make.
Q. And what are ethical pharmaceuticals?
A. Well, that's pharmaceuticals that would require a prescription.
Q. Okay.
A. You know, they had some over-the-counter also. And a lot of times a drug, a pharmaceutical, will start out as only under prescription, and after it's been on the market a while and particularly after the patent has run out, then they go to over-the-counter if it appears to be safe enough to use without that control.
And so that's -- then these nutraceuticals came along, and there they were using a lot of native things. They were using a lot of vitamins, minerals, amino acids.
We were the first company to market free-form amino acids or combinations, coenzyme vitamins. We were the first company to market coenzyme vitamins, very

81

popular in this field now.
And I can explain what a coenzyme vitamin is if you want to hear it.
Q. Sure. Go ahead.
A. A coenzyme vitamin, that vitamin does not go into your body and do anything. And where I got onto this, I was working with a group of psychiatrists from the American Psychiatric Association, and they noticed that when they gave megadoses of vitamin B6 that people who were schizophrenic would get better, but then after a while it stopped working.
And I said -- they said, Why?
You know, that's what I do. You go to a pharmacologist for something like that. Jim, can you figure out what's going on here?
And so I looked into it. And I said, Doctor, I've done some research on this -- or Doctors -- and what I found out is that vitamin B6 -- its chemical name is pyridoxine. I always like chemical names. It tells me what it is. Then I know what the structure is.
And I said that it's not used by the body in that form. I said what you have to do, you have to phosphorylate it.
In other words, you link a molecule of phosphorus to the vitamin and you turn it from a vitamin

82

into a coenzyme vitamin. It's another step. You've done something that their body hasn't done.
Well, does everybody need that? No. People that can't metabolize it properly.
Well, why is that so? Well, if I was trying to think of a simple way to explain it -- and that's one thing I always tried to do when I was detailing doctors, I would explain it so that anybody could understand it. And the doctor would say, Well, you know, I knew the technical answer, but now I can explain it to my patients. And I would kind of -- fine. Whatever.
But the point is this. Let's say that the process of phosphorylizing that vitamin -- let's do an analogy. I love analogies. It's something that you can understand. And let's say that in the body that part that does that is like a funnel, so all of these vitamins and other minerals and other things go into the funnel, and then it's metabolized into the coenzyme form. After all, phosphorus is a mineral, B6 is a vitamin, and they're linked together, and it comes out the other end which is a very small opening, and then your body can use it.
Now, in people that can't do it, their funnel is upside down, so all the vitamin B6 and phosphorus that's

83

coming in is going off on the sides and they can't use it, and you call them schizophrenic. It's not the only cause. It's one of the causes.
There is never, never one cause for any disease. There are many.
So using this, if you explain it that way, you explain it, and of course now pyridoxal-5-phosphate is one of the most popular nutraceuticals out there.
And I remember I said, Well, where was it developed? It was developed by Merck, not in the United States, in Darmstadt, Germany.
Well, I knew their director of sales. I went in early one day because of the time difference, picked up the phone and called Darmstadt, and I called him and I said, Do you have any pyridoxal-5-phosphate?
And of course he could speak English quite well, and he said, Yeah, I think we have maybe a kilo. We got the patent back in the '50s and never came up with anything from it and we just can't figure a use for it.
I said, Can I buy that kilo?
Now, why?
I said, Well, I've got a idea.
He said, Okay, fine.
So I took that kilo and we made some tablets, put 50 milligrams. Well, the physicians wanted me to

84

use 250. I said, No, no, no, you don't need that much. I could use less than 50 and it would work. Five -- three our four would work of the right form, and try that just on your schizophrenic patients. That wasn't a double-blind study.
And they tried it and it worked. They took them off of it; they went back. It would turn them on and off like a faucet. Nothing but a vitamin. That's a miracle.
Is that a cure? We didn't claim it was. We know what they're using it for. But we don't think it's very smart to invest over a billion dollars in a new drug approval.
Q. Well, in terms of your knowledge of putting together -- you know, extracting the chemicals out of herbs, at what point in your career did you begin doing that kind of work? Was that always --
A. Almost from the start.
Q. From the beginning. Okay.
A. And that's why they kept calling me, because I am creative.
Q. Okay.
A. I like to say I'm just a dumb Texan. I don't know I can't do this, so I do it.
MS. PAYNTER: Okay.

I don't have any more questions. I don't know -- Mr. Turner, do you?

MR. TURNER: No, no questions.

(Whereupon, the foregoing deposition was concluded at 12:24 p.m.)

(Reading and signature not waived.)

CERTIFICATION OF REPORTER

DOCKET/FILE NUMBER: 9329
CASE TITLE: Daniel Chapter One and James Feijo
HEARING DATE: February 11, 2009

I HEREBY CERTIFY that the transcript contained herein is a full and accurate transcript of the notes taken by me at the hearing on the above cause before the FEDERAL TRADE COMMISSION to the best of my knowledge and belief.

DATED: FEBRUARY 11, 2009

JOSETT F. WHALEN, RMR

CERTIFICATION OF PROOFREADER

I HEREBY CERTIFY that I proofread the transcript for accuracy in spelling, hyphenation, punctuation and format.

DIANE QUADE

CERTIFICATE OF DEPONENT

I hereby certify that I have read and examined the foregoing transcript, and the same is a true and accurate record of the testimony given by me.

Any additions or corrections that I feel are necessary, I will attach on a separate sheet of paper to the original transcript.

JAMES K. DEWS

I hereby certify that the individual representing himself/herself to be the above-named individual, appeared before me this day of , 2009, and executed the above certificate in my presence.

NOTARY PUBLIC IN AND FOR

MY COMMISSION EXPIRES:

WITNESS: JAMES K. DEWS
DATE: February 11, 2009
CASE: In the Matter of Daniel Chapter One and James Feijo
Please note any errors and the corrections thereof on this errata sheet. The rules require a reason for any change or correction. It may be general, such as "to correct stenographic error" or "to clarify the record" or "to conform with the facts."

PAGE	LINE	CORRECTION	REASON FOR CHANGE

Exhibit
3

REPORT OF EXPERT WITNESS SALLY LaMONT
In the Matter of Daniel Chapter One
FTC Docket #9329

I. QUALIFICATIONS

As you will see in my curriculum vitae, I am dually licensed in California as naturopathic doctor and acupuncturist. I graduated from the National College of Naturopathic Medicine in Portland, Oregon in 1981 and have been licensed in both Oregon and California to practice naturopathic medicine. I graduated from Emperor's College of Oriental Medicine in 1986 and have been licensed in both California and Oregon to practice acupuncture. I am a member of the American Association of Naturopathic Physicians and the California Naturopathic Doctors Association and the California Society of Oriental Medicine and Acupuncture.

I have practiced naturopathic medicine since 1981, working with diet, nutritional supplements, botanical medicine, and mind-body treatments. Since being licensed as an acupuncturist in California in 1986, I have integrated acupuncture and Chinese herbal medicine into my work. My practice focuses on helping people identify the root causes of their condition, removing the obstacles to cure, and developing personalized natural treatment protocols to resolve symptoms and promote health. I evaluate patients through a variety of state-of-the-art laboratory tests and integrate nutritional medicine with herbal medicine and acupuncture.

Since 2005, I have been on the faculty of San Francisco State University's "Institute for Holistic Healing Studies" within their Department of Health Education. Over the past 4 years, her popular classes include "Naturopathic Medicine and Personal Wellness", "Nutrition and Herbal Medicine" and "The Holistic Health Speakers Series".

In 1998, I joined the board of directors of the California Naturopathic Doctors Association (CNDA). I took a brief sabbatical from my practice in May of 2000 to serve as Executive Director of the CNDA and lead the successful legislative campaign to

license NDs in California. Passage of the Naturopathic Doctors Practice Act resulted in the creation of the Bureau of Naturopathic Medicine within California's Department of Consumer Affairs. Licensure of NDs provides Californians legal access to the care of licensed naturopathic doctors. The established scope of practice in California allows licensed NDs to serve as primary health care providers who treat acute and chronic conditions, in a prevention-oriented approach to healthcare.

For the last 22 years, I have witnessed the tremendous value that changes in lifestyle, diet and the correct use of the nutritional and herbal supplements can provide. During this time in practice I have had the opportunity to provide adjunctive care to patients undergoing conventional cancer treatment, utilizing a range of dietary supplements and botanical medicines that were compatible with their conventional regimen. The body has immense self-healing capacities, which when properly supported can respond and heal from even serious diseases. In my experience, people receiving chemotherapy and radiation fare better, in both the short and long term, when they concurrently use natural therapies and lifestyle to mitigate the side effects and support their overall health.

An additional note: I have had the unusual experience of supporting my first husband, John LaMont, M.D., a family practitioner, through his death from non-Hodgkins lymphoma in 1992. John lived for 16 years with this cancer and as one of the first medical doctors interested in nutrition and natural therapies, he pursued virtually all known conventional and alternative treatment modalities. Together we explored a variety of nutritional interventions including the use of high dose intravenous vitamins, traditional Chinese medical options including acupuncture and variety of Chinese herbal medicine, Ayurvedic medicine including working with Dr. Deepak Chopra in 1991, Dr. Stanislaus Burzynski's antineoplastic therapies and well as 4 rounds of conventional chemotherapy, radiation, monoclonal antibody therapies at Stanford and a bone marrow transplant.

Together, my education and these experiences give me a unique perspective as an expert witness in this case.

II. SCOPE OF WORK

I have been asked by the attorneys representing Daniel Chapter One to provide a opinions on the use of nutritional supplements and botanical medicines in the prevention and treatment of illness, including but not limited to cancer. In addition, I was asked to review the evidence that exists regarding the mechanisms of action of the major constituents of DCO's cited products and to provide an opinion of that evidence for:

- "GDU"
- "7 Herb Formula"
- "BioMixx"
- "BioShark"

Compensation: $175/hour
Prior expert testimony: see prior disclosures.

III. MATERIALS CONSIDERED

To form my opinion, I have conducted literature searches on PubMed, that includes over 18 million citations from MEDLINE and other life science journals for biomedical articles back to 1948. PubMed includes links to full text articles and other related resources. I also utilized Google, and numerous websites including the website of the Memorial Sloan-Kettering Cancer Center, Dr. Duke's Ethnobotanical and Phytochemical Database and the database of the American Botanical Council. I have utilized several books, including Medicinal Plants of the World (Van Wyk and Wink). In addition, I have drawn from my experience as a practicing naturopathic doctor and acupuncturist who utilizes dietary supplements and botanical medicines in daily practice.

I have also reviewed the information provided to me by Daniel Chapter One, including the Daniel Chapter One Product Labels, Literature provided by Daniel Chapter

One, and the Summary of Medical Evidence provided Daniel Chapter One, all of which I understand have been provided to the FTC by Daniel Chapter One and/or its counsel.

IV. SUMMARY OF OPINIONS ON THE EVIDENCE PRESENTED

Hippocrates, the Father of Medicine, advised his patients to "Let your food be your medicine and your medicine be your food." Traditional and indigenous cultures naturally understood the connection between plants as both their food and their medicine. Today, there is a growing body of scientific evidence to substantiate the fact that the natural compounds present in plants act in multiple ways to support our innate homeostatic mechanisms, improve physiological function and reduce the expression of disease. "Epidemiological studies consistently indicate that consumption of fruits and vegetables lowers cancer risk in humans and suggest that certain dietary constituents may be effective in preventing (colon) cancer. Plant-derived phenolic compounds manifest many beneficial effects and can potentially inhibit several stages of carcinogenesis in vivo." Carcinogenesis 2000 May; 21(5): 921-7. Many population studies have demonstrated lower incidences of several chronic degenerative diseases in cultures that eat a plant-based diet compared to the Western diet. Campbell, TC, *The China Study* (Dallas, TX: Ben Bella Books 2005); Cordain, L., "Origins an Evolution of the Western Diet: Health Implications for the 21st Century," American Journal of Clinical Nutrition 81, no.2 (2005): 341-54.

Humans have co-evolved with plants and we survive and thrive today because our bodies utilize plants for sustenance. The macronutrients, micronutrients and phytonutrients in food and phytochemicals in plants are biologically active compounds that influence our metabolism. A wealth of information on potential treatments for cancer and other conditions dwells in the clinical knowledge of traditional and indigenous cultures and their Material Medica. Herbalists have long known that herbs are an extension of food and have used the plants of this earth as medicines. They have prepared teas and concentrated extracts to potentiate the therapeutic effects of these phytomedicines. More recently, ethnobotanists and pharmocognocists have worked to identify and catalogue these plants and their bioactive constituents. International researchers have begun the laborious process of isolating the biologically active

compounds and examining their mechanisms of action in order to determine their effect on various aspects of disease, especially carcinogenesis (i.e. the production of cancer or carcinoma).

The biologically active compounds in plant medicines have been termed "secondary metabolites". Interestingly, the compounds produced by one species to protect them from their environment actually influence the metabolism of another species, and mimic the structure of our hormones, neurotransmitters and other aspects of our metabolism. These biologically active compounds have interacted with and shaped our physiological processes over millennia in a process termed "evolutionary molecular modeling". One of the advantages of using the phytonutrients present in food and the phytochemicals present in plants is that they exert their influences on multiple molecular targets. "Secondary metabolites usually are multifunctional compounds because most of them carry more than one pharmacologically active chemical group. In addition, secondary metabolites usually occur in complex mixtures. In consequence, the extract of a medicinal plant affects more than one molecular target and it is likely that several targets are affected concomitantly when taking phytomedicines. In complex disorders, the application of such extracts increases the chances of "hitting" one or several relevant targets". Van Wyk and Wink, *Medicinal Plants of the World*, Timber Press, Portland, Oregon 2003.

In his recent book "Anticancer -- A Way of Life", oncologist David Servan-Schreiber, M.D., Ph.D., who is himself a two-time cancer survivor, suggests we can approach cancer in this way: "There are certain circumstances under which these savage bands are disrupted and lose their virulence: (1) when the immune system mobilizes against them, (2) when the body refuses to create the inflammation without which they can neither grow nor invade new territories, or (3) when blood vessels refuse to reproduce and provide the supplies the cells need to grow. These are the mechanisms that can be reinforced to prevent the disease from taking hold. Once a tumor is installed, none of these natural defenses can replace chemotherapy—or radiotherapy. But they can be exploited, accompanying conventional treatments, to fully mobilize the body's resistance to cancer". Dr. Servan-Schreiber goes on to elucidate the growing body of evidence that a

diet rich in chemoprotective plants can assist us in multiple ways in our fight to prevent and support the treatment of cancer. (Servan-Schreiber, D., *Anticancer—A Way of Life,* Viking Penguin Press, New York, New York, 2008).

Scientific research, a selection of which follows in this report, demonstrates that the phytonutrients and phytochemicals present in plants have the capability to act at the precise molecular targets that scientists are seeking to affect with the new generation of biological response modifiers:

- Immunostimulatory effect: astragalus and medicinal mushrooms
- Anti-inflammatory effect: curcumin and bromelain
- Anti-angiogenic effect: green tea and ginseng

Some examples of how plant phytochemicals act as "biological response modifiers" to affect our physiological process are detailed here in this report:

- Watercress: rich in glucosinolates that inhibit carcinogenesis and induce apoptosis
- Turmeric rich in curcuminoids that inhibit COX2
- Bromelain: proteolytic and anti-inflammatory effect
- Quercitin (ubiquitous in plants): inhibits tumor growth, alters cell cycle regulation
- Green tea (EGCG): signal transduction, inhibits COX2 and induces apoptosis,

Knowledge of this kind of information should empower us to use these compounds as our food and as our medicine. The awareness of the powerful chemoprotective effects of plant foods and medicines should not influence patients with cancer and other serious diseases to abandon using the most effective methods that modern medicine has to offer. Furthermore, such knowledge does not diminish the need for further research but instead should hasten its pace.

"Phytomedicines often contain a mixture of substances that have additive or even synergistic effects, so that the health benefits are difficult to test or verify. Plant medicine

or phytochemicals may have subtle effects of several different biochemical pathways and receptors in the mind-body continuum that may all contribute directly and indirectly to restore equilibrium and balance. It is hard to dismiss medical claims of safety and efficacy when a plant medicine has been used in traditional cultures for centuries without evidence of serious side effects. Research results generated over the last few decades have given us a much better understanding of the scientific rationale behind many natural remedies." Van Wyk and Wink, *Medicinal Plants of the World*, Timber Press, Portland, Oregon 2003.

Without a doubt, research is urgently needed to elucidate the mechanisms of action of phytonutrients and phytochemicals in the prevention and treatment of disease. The very complexity of these compounds presents immense challenges for research since they do not occur, nor do they act in isolation. One challenge with this approach is that it reduces the naturally occurring agent, which contains multiple compounds affecting multiple targets, to a single agent affecting a single target. While it is urgent that we understand the secondary metabolites and their actions, developing a new drug from that information is not the only worthwhile path. Adding to the challenge is the fact that research dollars are limited when natural agents can't be patented and their sale will never recover the cost of the research. As pharmaceutical scientific research works to identify new potential drugs from natural agents, it tends to diminish or dismiss the therapeutic value of the former.

Traditional use evidence does not replace human clinical trials. There are real limits to our current understanding of plant-based medicines that rests mostly on cultured cell lines and animal models. But many would argue that it is not essential that we wait to recommend the use of the original plant compound until all the evidence has been collected. The current situation is that cancer patients in particular are denied the opportunity to utilize natural therapies in a clinical setting until they have failed conventional therapies. In our rush to identify and utilize the most biologically active components of food and botanical medicines, we must respect the fact that for millennia mankind has used these foods and plants without evidence of serious harm.

V. ANAYLSIS AND FINDINGS

A. GDU

The four main ingredients in GDU are reviewed in this document.

1) Bromelain
2) Turmeric
3) Feverfew
4) Quercetin

SCIENTIFIC NAME: ANANAS COMOSUS (BROMELIACEAE)

Common name: Bromelain

Historical use: Bromelain belongs to a group of plant-derived proteolytic enzymes isolated from the stem and core of the pineapple. It has been used in the Chinese Materia Medica, other Asian cultures and by Western herbalists for a wide range of applications including but not limited to traumatic injury and arthritis and cancer.

Clinical Summary:

Bromelain has many in vitro and in vivo studies and its properties include: 1) the ability to interfere with growth of malignant cells; 2) inhibit platelet aggregation; 3) fibrinolytic activity; 4) anti-inflammatory action; 5) skin debridement properties. These biological functions of bromelain, a non-toxic compound, have therapeutic values in modulating a) tumor growth; b) blood coagulation; c) inflammatory changes; d) debridement of third degree burns; 3) enhancement of absorption of drugs. J Ethnopharmacol. 1988 Feb-Mar; 22(2):191-203.

Biochemically active constituents and known mechanisms of action:

Chemical constituent: Sulphydryl proteolytic enzyme, cysteine-proteinase. Bromelain also contains a peroxidase, acid phosphatases, several proteases inhibitors and organically bound calcium. Alt Med Rev 1: 243-257.

In addition, CCS and CCZ are two novel constituents (proteases) that and bind the growth of a broad range of tumor cells including breast, colon, lung, ovarian and melanoma. Med Res News 2005; http://www.qimr.edu.au

Bromelain has been demonstrated to:

- Reduce platelet aggregation and adhesion of platelets to blood vessel endothelial cells.
  Cell Mol Life Sci 2001;58:1234-45.

- Act as anti-inflammatory agents in various forms of arthritis and inflammatory states via reduction in PGE2 and TXA2. Ethnopharmacology 22:191-203

- Down-regulate immunosuppressive cytokine TGF-beta, inhibits tumor cell growth, modulation of immune cell function, modulation of cell adhesion molecules and the effects on platelet aggregation and thrombosis. Cancer Chemother Pharmacol 2001; 47: S10-5 & Cell Mol Life Sci. 2001 Aug:58(9):1234-45

- Systemic enzyme therapy (including bromelain) significantly decreased tumor–induced and therapy-induced side effects and complaints such as nausea, gastrointestinal complaints, fatigue, weight loss, and restlessness and obviously stabilized the quality of life.
  Integr Cancer Ther. 2008 Dec; 7(4):311-6

- The anti-metastatic effect of bromelain occurs with or without its proteolytic and anticoagulant activity: Journal of Can Res Clin Onc. 1998; 114: 507-508

- Bromelain treatment alters leukocyte expression of cell surface molecules involved in cellular adhesion and activation. Clin Immunol. 2002; 104:183-190

- Pretreatment with bromelain of human T cells cleaves CD44 surface adhesion molecules and markedly enhances CD2-mediated T cell activation. J Immonol 1992; 149:3809-16

- In addition, in vitro studies have shown that bromelain can:
  - inhibit the cytokines IL 4, IL2, gamma interferon
  - reduce cell surface receptors CD44 which is associated with leukocyte migration and induction of proinflammatory mediators
  - reduce CD4 lymphocytes (primary effectors in animal models of inflammation)
  - block growth of a broad range of tumor cells including breast, lung, colon, ovarian and melanoma via two proteins, CCS and CCZ discovered in 2005 by researchers at Queensland Institute for Medical Research.

    Pakistani Journal of Nutrition Review 7 (4); 513-520, **2008**

- Inhibit the first step of metastasis by diminishing the expression of intracellular compounds that degrade the intracellular matrix and allow migration of metastatic cells through tissues. Cell Mol Life Sci. 2001 Aug:58(9):1234-45

- Bromelain reversibly inhibits invasive effects on glioma cells; These results indicate that bromelain exerts its anti-invasive effects by proteolysis, signaling cascades, and translational attenuation.

  Neoplasia. 2001 Nov-Dec;3(6):469-79

Adverse reactions: diarrhea, GI disturbance, allergic reactions (to pineapple). Cell Mol Life Sci. 2001 Aug:58(9):1234-45

Herb/Drug Interactions:

Bromelain may increase blood and urine levels of antibiotics.

Bromelain may change the effect of drugs such as 5-FU and vincristine.

Bromelain may increase the risk of bleeding due to its antithrombotic effects.

http://www.mskcc.org/mskcc/html/69152.cfm

SCIENTIFIC NAME: RHIZOMA CURCUMA LONGA (ZINGIBERACAE)

Common Name: Turmeric, Indian saffron

History of use: Turmeric is a yellow-pigmented spice with a long history of use in Asian cooking and as Traditional Chinese and Ayurvedic medicine. It is part of the ginger family and has been used as an anti-inflammatory. It has been used for centuries in the Asian countries without any toxic effects. Curr Pharm Des. 2002; 8(19):1695-706

Clinical summary: A growing body of research suggests that curcumin has a potential for the prevention and treatment of cancer. Preclinical trials have shown that curcumin can both inhibit the formation of tumors in animal models and act on a variety of molecular targets involved in cancer development. In vitro studies have shown that curcumin induces apoptosis and some degree of selectivity of cancer cells. Clinical trials have revealed that curcumin is well tolerated and may produce antitumor effects in people with precancerous lesions or who are at high risk for developing cancer. This seems to indicate that curcumin is a pharmacologically safe agent that may be used in cancer chemoprevention and therapy. Both in vitro and in vivo studies have shown, however, that curcumin *may* produce toxic and carcinogenic effects under certain circumstances and specific conditions and may alter the effectiveness of chemotherapy and radiotherapy.

Mol Nutr Food Res. 2008 Jun; 52 Suppl 1:S103-27

Human clinical trial: Oral curcumin is well tolerated and, despite its limited absorption, has biological activity in some patients with pancreatic cancer. Clin Can Res. 2008: 14(14): 4491-4499.

Turmeric has demonstrated anticarcinogenic effect in cultured cell lines and animal models, at all phases of cancer growth including initiation, post-initiation, promotion, and progression, allowing it to be useful in secondary prevention. Cancer Research. 1999 Feb 1 (59): 597-601

The current science indicates multiple mechanisms of action to support the intake of such a level of turmeric along with other dietary sources of flavonoids (quercitin) as a reasonable suggestion for individuals who are fighting cancer.

Biochemically active constituents and known mechanisms of action:

To date, at least 94 biologically active compounds have been isolated from turmeric (Dr. Duke's Phytochemical and Ethnobotanical Database (accessed 1/09).

The plant derived phenolic compound curcumin (diferuloylmethane) is the most active constituent.

Curcumin functions as a potent COX 2 inhibitor with anti-inflammatory, anti-oxidant and multiple anticancer activities in dozens of vitro studies and some human clinical trials, a selection of which follows:

Mol Nutr Food Res. 2008 Jun;52 Suppl 1:S103-27

- Curcumin induces apoptosis (programmed cell death) in both androgen-dependent and androgen-independent prostate cancers. Prostate Cancer and Prostatic Diseases. 2000 Aug; 3(2):84-93 PMID: 12497104

- Curcumin has a chemoprotective and growth inhibitory action against a variety of cancer cell lines. Curcumin works in concert with TNF-related inducing ligand (TRAIL) and sensitizes androgen sensitive human prostate cancer cells lines to trigger apoptosis. Mol Cancer Ther. 2003 Jan;2(1): 95-103

- Curcumin inhibits:
  - Lipoxygenase activity and the leukotrienes the follow
  - COX 2 expression and the proinflammatory prostaglandins that follow.
  - The initiation of carcinogenesis by inhibiting cytochrome p450 enzymes and increases glutathione S-transferase
  - The promotion and progression of carcinogenesis (S,G2/M cell cycle phase and induction of apoptosis)
  - The growth of DNA mismatch repair of defective colon cancer cells.

Curr Pharm Des. 2002; 8(19): 1695-706

- Curcumin exerts its anti-carcinogenic properties by inducing modulation of the cell cycle and apoptosis by inhibiting proliferation and inducing apoptosis in specific gastric and colon cancer cell lines. Anticancer Research. 2001 Mar-Apr; 21(2A):873-8

- Curcumin inhibits human colon carcinoma (Lovo) cell proliferation in a dose dependent manner, and induces apoptosis in colon cancer cells and arrests the cell cycle in S, G2/M phase. Anticancer Res. 1999 Sep-Oct;19(5A):3675-80.

- Curcumin decreases the number (and size) of AOM-induced tumors in mice, as well as the percent of mice that get tumors; decreases the numbers of papillomas and squamous cell cancers of forestomach and adenomas and adenocarcinomas of the duodenum and colon
  Cancer Research. 1994 Nov 15; 54(22): 5841-7

- Curcumin has a chemoprotective effect in mice with AOM induced colon cancer in various stages of turmorigenesis. Cancer Res. 1999 Feb 1; 59(3):597-601

- Curcumin suppresses Apc (gene mutation) that causes intestinal adenomas in animal models Carcinogenesis, 2000 May;21(5): 921-7

- Curcumin is known to down regulate Cyclin-D1 expression through activation of both transcriptional and post-transcriptional mechanisms in various prostate, breast and squamous cell lines. Oncogene. 2002 Dec 12;21(57):8852-61

- Curcumin can suppress tumor initiation, promotion and metastasis-found to be safe, with no toxicity up in human clinical trials at a dose of up to 10 grams per day.
  Anticancer Research 2003 Jan-Feb; 23(1A):363-98

Adverse effects: none known. http://www.mskcc.org/mskcc/html/69401.cfm

Herb Drug Interactions:

Anticoagulants / Antiplatelets: Turmeric *may* increase risk of bleeding

Brinker F. Herbal Contraindications and Drug Interactions, 2nd ed. Sandy (OR): Eclectic Medical Publications; 1998

Camptothecin: Turmeric inhibits camptothecin-induced apoptosis of breast cancer cell lines in vitro. Cancer Res 2002;62:3868-75.

Mechlorethamine: Turmeric inhibits mechlorethamine-induced apoptosis of breast cancer cell lines in vitro. Cancer Res 2002;62:3868-75.

Doxorubicin: Turmeric inhibits doxorubicin-induced apoptosis of breast cancer cell lines in vitro. Cancer Res 2002;62:3868-75.

Cyclophosphamide: Dietary turmeric inhibits cyclophosphamide-induced tumor regression in animal studies. Cancer Res 2002;62:3868-75.

SCIENTIFIC NAME: TANACETUM PARTHENIUM (COMPOSITAE)

(PREVIOUSLY IT WAS KNOWN AS CHYRSANTHEMUM PARTHENIUM)

(ASTERACEAE)

Common name: Feverfew, Bachelor's button, wild chamomile

Historical use: Feverfew has been used for centuries as a febrifuge and for the treatment of migraines and arthritis. Other historical uses have been in the treatment of anemia, earache, dysmenorrheal, dyspepsia, trauma and intestinal parasites. More recently, it has been used in gardens to control noxious pests (its pyrethrin component is an effective insecticide and herbicide). Duke JA, Handbook of Medicinal Herbs. CRC Press, Boca Raton, FL, 1985 p.118

Clinical summary: Derivatives from the leaves of the plant have been used primarily to treat migraine headaches. Parthenolide extract has been shown to reduce the frequency of migraine attacks. Another constituent of feverfew has antioxidant activities. A few in

vitro studies have shown that feverfew exhibits anticancer effects. See http://www.mskcc.org/mskcc/html/69219.cfm and below.

Biochemically active constituents and known mechanisms of action:

To date, 46 biologically active constituents have been isolated from Chrysanthemum parthenium.

(Dr. Duke's Phytochemical and Ethnobotanical Databases (accessed 1/09 but dated 1992. Since this time, the botanical name has evolved to be listed as Tanacetum parthenium).

Parthenolide, a sesquiterpine lactone, has been isolated from the leaf of Tanacetum and has been the most studied constituent for its anti-inflammatory action. Additional constituents include

Parthenolide has demonstrated effectiveness against cancer by inhibiting NF Kappa B activity:

- Parthenolide has been used in conjunction with Sulindac, an NSAID, in the treatment of pancreatic cancers, demonstrating decreased NFkappaB DNA binding and transcriptional activities in cells treated with the combination compared with the single agents, demonstrating cooperative targeting of the NF-KB pathway. These data provide preclinical support for a combined chemotherapeutic approach with NF-KB inhibitors and NSAIDs for the treatment of pancreatic adenocarcinoma. Mol Cancer Ther. Apr 2005;4(4):587-594

- Transcription factors such as NF-KB provide powerful targets for drugs to use in the treatment of cancer. In this report parthenolide (PT), a sesquiterpene lactone of herbal remedies such as feverfew *{Tanacetum parthenium)* with NF-kB inhibitory activity, markedly increased the degree of human leukemia HL-60 cell differentiation when simultaneously combined with 5 nM 1D:,25-dihydroxyvitamin Di (I,25-(OH)2D3). PT by itself did not induce HL-60 cell differentiation. In addition, These results indicate that PT strongly potentiates the 1,25-(OH)2D3-induced HL-60 cell differentiation into monocytes *via* the inhibition of NF-KB activity and provide evidence that inhibition of NF-KB activation can be a pre-requisite to the efficient entry of promyelocytic leukemia cells into a

differentiation pathway. British Journal of Pharmacology (2002) 135, 1235-1244

- Parthenolide is a major sesquiterpene lactone derived from feverfew (Tanacetum parthenium) with known anti-inflammatory activity. Moreover, the anticancer potential of this compound was suggested. In this study, we determined the effect of parthenolide on proliferation of three human cancer cell lines: human lung carcinoma (A549), human medulloblastoma (TE671), human colon adenocarcinoma (HT-29) and human umbilical vein endothelial cells (HUVEC) in vitro. Parthenolide inhibited proliferation of all three types of cancer cells (A549, TE671, HT-29) and HUVEC with the following IC(50) values (in muM): 4.3, 6.5, 7.0 and 2.8, respectively. Thus, the antiproliferative potential of parthenolide was confirmed. Pharmacol Rep. 2007 Mar-Apr; 59(2): 233-7

- Parthenolide is an active sesquiterpene lactone present in a variety of medicinal herbs and is well known for its anti-inflammatory activity. The antimicrotubular and antiproliferative effects of parthenolide, well-known microtubule-stabilizing anticancer agent, may influence paclitaxel activity. The tubulin/microtubule system may represent a novel molecular target for parthenolide, to be utilized in developing new combinational anticancer strategies. Chemico-Biological Interactions 149 (2004) 165–173

- Parthenolide, an active ingredient of herbal remedies such as feverfew (Tanacetum parthenium) mimicked the effects of IkBa by inhibiting NF-kB DNA biding activity and Mn-SOD expression, and increasing paclitaxel-induced apoptosis of breast cancer cells. These results suggest that active ingredients of herbs with anti-inflammatory properties may be useful in increasing the sensitivity of cancers with constitutively active NF-kB to chemotherapeutic drugs. Oncogene 2000 (19) 4159-4169

Adverse reactions: Patients allergic to ragweed, chrysanthemum, marigold or other members of the Compositae family may have cross-reactivity to feverfew. Minor GI distress may occur. Mouth ulcerations have been reported from chewing fresh feverfew

leaves. Cases of airborne contact dermatitis have also been reported. http://www.mskcc.org/mskcc/html/69219.cfm

Withdrawal: Muscle stiffness, anxiety, and moderate pain usually occur following cessation of long-term feverfew use (post-feverfew syndrome). Br Med J (Clin Res Ed). 1985 Aug 31; 291(6495): 569–573 and Br J Dermatol. 2007 Mar;156(3):510-5

Herb/Drug interactions: Theoretically, feverfew may have additive effect with anticoagulants and antiplatelet drugs. http://www.mskcc.org/mskcc/html/69219.cfm

SCIENTIFIC NAME: QUERCETIN (3,3',4',5,7-pentapentahydroxyflavone)

Common name: Quercetin

Clinical summary: Quercetin is a phytonutrient that is a member of the polyphenolic flavonoid family, constituting the major bioflavonoids in the human diet. The glycoside form is readily available in dietary plants such as ***onions, apple, buckwheat, red wine and teas.*** Quercetin has a number of biological activities such as antioxidant, anti-inflammatory, and anti-allergy. Quercetin is being used for the treatment of allergic rhinitis, cardiovascular disease, inflammation, cancer prevention and treatment. http://www.mskcc.org/mskcc/html/69346.cfm

Biological activities and known mechanism of action:

Quercetin is a flavonoid molecule ubiquitous in nature. A number of its actions make it a potential anti-cancer agent, including cell cycle regulation, interaction with type II estrogen binding sites, and tyrosine kinase inhibition. Quercetin appears to be associated with little toxicity when administered orally or intravenously. Much in vitro and some preliminary human data indicate quercitin inhibits tumor growth. Altern Med Rev. 2000 Jun; 5(3): 196-200

What follows is an overview of the research on quercetin and cancer from Alternative Medicine Review 2000 Jun; 5(3): 196-200:

- Quercetin was found to down regulate expression of mutant p53 protein to nearly undetectable levels in human breast cancer cell lines. Lower concentrations gave less reduction. The inhibition of expression of p53 was found to arrest the cells in the G2-M phase of the cell cycle.

- Quercetin has been found to inhibit the expression of the p21-ras oncogene in cultured colon cancer cell lines. Mutations of ras proto-oncogenes are found in over 50% of colon cancers, as well as many other tumor types.

- Radiotherapy: Quercetin showed a significant but mild enhancement of the cytotoxic effect of radiation on rat hepatoma cells when added to the medium. A human study showed topical and oral administration of quercetin to reduce skin damage during radiotherapy in patients with head and neck cancers.

- Chemotherapy: Quercetin has been shown to increase the therapeutic efficacy of cisplatin both in vitro and in vivo in mice. An in vitro study using human ovarian and endometrial cancer cell lines found that addition of quercetin to cisplatin caused a potentiation of the cytotoxic effect of cisplatin
- Quercetin has been shown in vitro to protect normal renal tubular cells from cisplatin toxicity.

Adverse reactions: Human studies have not shown any adverse effects associated with oral administration of quercetin in a single dose of up to 4,000 mg (Eur J Clin Pharmacol 1975; 9:229-234)
or after one month of 500 mg. twice daily. (Urology 1999; 54: 960-963)

Herb/Drug interactions:
Chemotherapeutic agents: See above for chemotherapeutic agents
Papain and Bromelain: May assist the absorption of Quercetin in the intestine. Herr, SM. Herb-Drug Interaction Handbook. Chuch Street books. 2nd ed. Nassau NY 2002
Quinolone antibiotic: Quercetin may compete for DNA gyrase binding sites on bacteria. Urology 1999;54:960-3.

B. 7 HERB FORMULA

Ingredients of Daniel Chapter One's "7 Herb Formula" are listed and a selection of the scientific evidence of the activity of their constituents is presented.

SCIENTIFIC NAME: ARCTIUM LAPPA (Asteraceae):

Common Names: Burdock, Greater Burdock, Gobo and Nui bang zi (pin yin)

Historical use: Burdock has a long history of use dating from the Chinese Materia Medica, Native Americans, and Eclectic herbalists as an alterative, anti-inflammatory, antimicrobial, cholegogue, diuretic, diaphoretic, hypoglycemic, and a "blood purifier." Arctium lappa was an original herb in Renne Caisse's "Essiac Tea", which has been used to support the immunity of those with cancer. According to the Journal of Ethnopharmacology, Essiac tea possesses potent antioxidant and DNA-protective activity, properties that are common to natural anti-cancer agents. J Ethnopharmacology. 2006 Jan 16;103(2); 288-96.

Biologically active constituents and proposed mechanisms of action: To date, at least 119 secondary metabolites have been isolated from Arctium lappa (Duke's Phytochemical and Ethnobotanical Database) accessed 1/09. Arctium lappa contains many polyphenolic acids and flavonoids with potential chemoprotective effects. Below is a list of five of Arctium lappa's most active constituents:

- Arctigenin: extract of Arctium lappa showed potent antiproliferative activity against B cell hybridoma cell, MH 60 through apoptosis Planta Medica. 2006 Feb; 72(3):276-8 Arctigenin potently inhibits the activity of MKK1 in vitro, thus inhibiting phosphorylation of MAP kinases http://www.proteinkinase.de/html/map_kinase_inhibitors.html#arctigenin
- Chlorogenic acid: this study found chlorogenic acid to have anticancer properties via inhibition of microsomal G6P transferase in glioma cells. Cancer Cell International, 2006, 6: 7:doi.10.1186/1475-2867-6-7
- Inulin: a plant fiber/sugar that reduced carcinogenesis in rats Carcinogenesis. 2002 Nov. 23 (11): 1953-60

Clinical summary: Arctium lappa contains numerous compounds that possess antipyretic, antimicrobial, antimutagenic, anti-oxidant, antitumor, cholegogue and desmutagenic activities. Chemoprevention of Cancer, CRC Press, 1995 Nixon D

Adverse effects: hypoglycemia. Some potential for allergic reaction/contact dermatitis if sensitive to chrysanthemum; it should be avoided by pregnant and lactating women because it may cause uterine stimulation. JAMA 1978; 239: 2157

Herb/drug interactions: none discovered

SCIENTIFIC NAME: RHEUM PALMATUM (Polygonaceae)

Common name: Chinese rhubarb (da huang), Turkey Rhubarb

Historical use: Rhubarb has been used in the Chinese Materia Medica for centuries for the treatment of inflammatory diseases; as a purgative/laxative in both Chinese, Western, European herbal medicine; Rheum palatum was an original herb in Renne Caisse's "Essiac Tea", which has been used to support the immunity of those with cancer. According to the Journal of Ethnopharmacology, Essiac tea possesses potent antioxidant and DNA-protective activity, properties that are common to natural anti-cancer agents. J Ethnopharmacology. 2006 Jan 16;103(2): 288-96.

Biologically active constituents and proposed mechanisms of action::

Contains 30 biologically active chemicals (Dr. Duke's Phytochemical and Ethnobotanical Databases) accessed 1/09

- Anthroquinone derivatives are its major active constituents and it is derivatives of these compounds that that play a substantial role in inhibiting angiogenesis. Journal of Ethnopharmacology. 2009 Jan 21: 121 (2): 313-7
- Aloe-emodin: (anthroquinone) possesses anti-tumor properties Med Research Review. 2007 Sept; 27(5): 609-30
- Emodin: is the most abundant anthroquinone in Rheum. It is capable of inhibiting cellular proliferation, induction of apoptosis, prevention of metastasis...through induction of protein kinases, phosphoinositol 3 kinase (P13K), protein kinase C (PKC), NF-Kappa B (NF-KappaB), and mitogen-activated protein kinase (MAPK) signaling cascades. Its anti-proliferative properties are through the p53 and p21 pathways.

  Med Res. Review. 2007 Sept; 27(5): 609-30

- Emodin: inhibits protein kinasep651ck; acts on a number of molecular targets within the cell; Inhibits mammalian cell cycle modulation in specific oncogene over expressed cells; induces apoptosis; is used in combination with chemotherapy to reduce toxicity and enhance efficacy; inhibitory effects on angiogenic and metastatic properties make it a sensible candidate as a specific blocker of tumor-associated events. Medical Research Review. 2007 Sep; 27 (5): 591-608
- Quercitin: is the flavonoid molecule that is ubiquitous in nature, although no research on its action in Rheum is available.
- Rhein: (anthroquinone) inhibits the proliferation of various human cancer cells; this study demonstrated that rhein induced cell cycle S-phase arrest on human hepatocellular carcinoma BEL-7402 cells, via downregulation of oncogene c-Myc and apoptosis through the caspase-dependent pathway. American Journal of Chinese Medicine. 2008; 36(4):805-13

Clinical Summary: Rhubarb has been used for a variety of conditions including cancer, immunosuppression, constipation, diarrhea, ulcers, hypertension and chronic renal fatigue. The anthroquinone and tannins are thought responsible for the laxative and constipating effects, respectively. Although animal studies have confirmed antitumor effects, limited human clinical data is available. Memorial Sloan-Kettering Cancer Center http://www.mskcc.org/mskcc/html/69357.cfm

Adverse reactions: Intestinal cramps, nausea, vomiting and diarrhea have been reported due to the laxative effect. Long-term use can result in potassium loss due to diarrhea. Do not use long term. Memorial Sloan-Kettering Cancer Center http://www.mskcc.org/mskcc/html/69357.cfm

Herb/Drug Interactions: Diuretics: Potassium loss due to the stimulant laxative effect can increase potential risk for hypokalemia. Digoxin: stimulant laxative effect can increase potential risk for hypokalemia. Brinker F. Herb Contraindications and Drug Reactions, 3rd edition.

SCIENTIFIC NAME: RUMEX ACETOSELLA (Polygonaceae)

Common name: Sheep sorrel

Historical use: Sheep sorrel historically has been used as a salad green and spring tonic. Rumex acetosella was an original herb in Renne Caisse's "Essiac Tea", which has been used to support the immunity of those with cancer. According to the Journal of Ethnopharmacology, Essiac tea possesses potent antioxidant and DNA-protective activity, properties that are common to natural anti-cancer agents. J Ethnopharmacology. 2006 Jan 16;103(2); 288-96.

Biologically active constituents and proposed mechanisms of action:

Contains 33 biologically active chemicals (Dr. Duke's Phytochemical and Ethnobotanical Databases) accessed 1/09.

- Glycosides: Hyperoside, quercitin
- Anthroquinones: emodin, aloe-emodin, rhein, physcion (Memorial Sloan-Kettering Cancer Center Database (http://www.mskcc.org/mskcc/html/69375.cfm)

Clinical summary: Sheep sorrel is extremely nutrient-rich, containing high levels of calcium, iron, magnesium, silicon, sulfur, copper, iodine, manganese, zinc and vitamin C in addition to vitamins A, B complex, D, E, K, P and U. It also contains rutin, the flavones glycosides hyperin and hyperoside, carotenoids, organic acids and Anthroquinones. Sheep sorrel tea has been used traditionally to treat inflammation, fevers and cancer. Though anthraquinones are known to have antioxidant and antitumor activity, the anthraquinones in sheep sorrel have not been tested for these effects beyond anecdotal reports. American Botanical Council HerbClip ™

Adverse effects: Sorrel contains oxalate (oxalic acid), which may be toxic in large doses. Reports of organ damage and one report of death following ingestion of a concentrated sorrel soup have been published. Sorrel may also cause kidney stones, precipitation of drugs taken concomitantly, and malabsorption of minerals, such as calcium, iron, or zinc. http://www.naturalstandard.com/index-abstract.asp?create

Herb/Drug interactions: none known

SCIENTIFIC NAME: ULMUS RUBRA (Ulmuceae)

Common Name: Slippery Elm, Red elm, Indian elm

History of use: Ulmus rubra has been historically used for gastrointestinal disorders, skin ulcers or abscesses, cancers, coughs, fevers and inflammation. Its primary constituent is mucilage, which is responsible for the demulcent, emollient and antititussive properties, which form a viscous material following oral administration or for topical use. (Memorial Sloan-Kettering Cancer Center database: http://www.mskcc.org/mskcc/html/69381.cfm.

Ulmus rubra was an original herb in Renne Caisse's "Essiac Tea", which has been used to support the immunity of those with cancer. According to the Journal of Ethnopharmacology, Essiac tea possesses potent antioxidant and DNA-protective activity, properties that are common to natural anti-cancer agents. J Ethnopharmacology. 2006 Jan 16;103(2); 288-96.

Biologically active constituents and proposed mechanisms of action:

Contains 50 biologically active chemicals (Dr. Duke's Phytochemical and Ethnobotanical Databases) accessed 1/09. It is comprised mainly of mucilage, phytosterols, fatty acids and tannins, none of which have been studied for cancer.

Adverse reactions: none known

Herb/drug interactions: Theoretically, the mucilage and fiber content may slow the absorption of concomitantly administered oral medications, though no interactions have been reported. No human or animal studies have been performed to evaluate the efficacy of any proposed claims.

SCIENTIFIC NAME: UNCARIA TOMENTOSA (Pedaliaceae)

Common name: Cat's Claw, Garabato amarillo, Una de Gato

Historical use: Cat's Claw is a vine native to South America, specifically the Peruvian rainforest, where it has been a traditional medicine. It is a very popular immune-enhancing supplement and is known to help digestive complaints, arthritis and is considered to have an anti-inflammatory effect and anti-tumor effects.

http://www.mskcc.org/mskcc/html/69166.cfm

Biologically active constituents and proposed mechanisms of action:

Contains 29 biologically active chemicals (Dr. Duke's Phytochemical and Ethnobotanical Databases) accessed 1/09

The most biologically active compounds in Uncaria tomentosa are:

- Oxyindole alkaloids: isorhyncholophylline, rhynchophylline and protect against glutamate cell death in cultured cerebellar cells in rats. Journal Pharm Pharmacol. 1999 Jun;51 (6): 715-22
- Oleanolic acid and ursolic acid: a synthetic triterpenoid based on naturally occurring ursolic and Oleanolic acids induces apoptosis induced by TNF and chemotherapeutic agents through downregulation of expression of NF-Kappa B in human leukemic cells.
  Clin Cancer Res. 2006 Mar 15;12(6): 1828-38
- The primary mechanism for cat's claw anti-inflammatory actions appears to be immunomodulation via suppression of TNF synthesis. Free Radical Biology and Medicine. 2000 29(1) pp. 71-28
- An aqueous extract of cat's claw induced apoptosis, inhibited liopolysaccharide induced iNOS expression, cell death and inhibited the activity of NF-Kappa B, providing mechanistic evidence that cat's claw is an effective anti-inflammatory agent. Alimen Pharmacol Ther 1998 Dec; 12(12):1279-89
- Another aqueous extract of Uncaria tomentosa (C-Med-100) demonstrated a suppressive effect on tumor cell growth through induction of apoptosis. Anticancer Research 1998 Sep-Oct: 18(5A):3363-8
- Uncaria tomentosa (C-Med-100) demonstrated in a human trial to decrease DNA damage and increase DNA repair. Phytomedicine 8(4) pp. 275-282

Clinical Summary: In vitro studies show that the alkaloids from Cat's claw enhance phagocytosis, display immunomodulatory properties, alleviate inflammation, and possess anti-viral activity. Cat's claw is also thought to have anticancer activities and lab results demonstrated growth inhibitory effects on glioma and neuroblastoma cells as well as promyelocytic cells. http://www.mskcc.org/mskcc/html/69166.cfm

Adverse reactions: hypotension and diarrhea. http://www.mskcc.org/mskcc/html/69166.cfm

Herb/Drug interactions: an additive effect with anti-coagulants or hypotensives is possible but has not been reported. http://www.mskcc.org/mskcc/html/69166.cfm

SCIENTIFIC NAME: ELEUTHEROCOCCUS SENTICOSUS (Araliaceae):

Common Names: Siberian ginseng, Eleuthero ginseng, Ci Wu Jia (pin yin); Acanthopanax senticosus

Historical use: Eleutherococcus senticosus has been used for thousands of years in the Traditional Chinese Materia Medica as a kidney tonic to increase longevity, improve general health and appetite. In 1958, the Russian scientist Brekhman coined the term "adaptogen" as a substances that 1) must be innocuous and cause minimal disorders in the physiological functions of an organism, 2) must have a non-specific action (i.e., it should increase the resistance to adverse influences by a wide range of physical, chemical and biochemical factors), and 3) usually has a normalizing action irrespective of the direction of the pathological state (alterative action). The Healing Power of Herbs, Murray; Three Rivers Press, New York, 1995, pp.315-20)

Farnsworth and colleagues reviewed data on an Eleutherococcus senticosus root extract administered to over 2,100 human subjects to assess the adaptogenic effects of ginseng and concluded that it:

1. Increased ability of humans to withstand adverse physical conditions (heat, noise, motion, workload increase, exercise and decompression), and
2. Increase mental alertness and work output, and
3. Improved quality of work produced under stressful conditions, and athletic performance.

Farnsworth and colleagues reviewed data on an Eleutherococcus senticosus root extract administered to over 2,200 human subjects to assess its adaptogenic effect in disease states and concluded that it appears to be effective in:

1. Atherosclerotic conditions in that it can lower serum cholesterol levels, reduce blood pressure and eliminate angina symptoms in human subjects;
2. Improving kidney function and regulating blood pressure in patients with acute kidney infection
3. Improved sense of well-being of psychological complaints (insomnia, hypochondriasis, neuroses) possibly through regulation of biogenic amine content in the brain.

Economic and Medical Plant Research 1, 156-215. Farnsworth, 1985
The Healing Power of Herbs, Murray: Three Rivers Press, New York. 1995, pp.315-20)

Biologically active constituents and proposed mechanisms of action:

To date, at least 51 biologically active constituents in Eleutherococcus have been identified (Dr. Duke's Phytochemical and Ethnobotanical Database) accessed 1/09. The main active constituents are the eleutherosides, though very little current research is available. Below are some of the highlights:

- Eleutherococcus senticosus demonstrated immunomodulatory properties (enhanced the cellular response of the mouse immunological system (chemokinetic activity of mice spleen cells, GvH reaction), as well as a stimulatory effect of Eleutherococcus on the humoral response (antibody production) in mice. Pol Journal Vet Science 2003;6(3 Suppl):37-9.

- Eleutherococcus senticosus, as part of a formula (AdMax) was evaluated for its effect on ovarian cancer patients. In patients who took AdMax, the mean numbers of 4 T cell subclasses were increased, the mean amounts of IgG andIgM were incrased and the results suggest that the combination of extracts from adaptogenic plants may boost the suppressed immunity in ovarian cancer patients who are subject to chemotherapy. Phytotherapy Res. 2006 May; 20(5): 424-5

- Standardized extracts of Eleutherococcus senticosus at generally recommended doses for over-the-counter use are unlikely to alter the disposition of co-administered medications primarily dependent of CY2D6 or CYP3A4 pathways for elimination. Drug Metab Disp. 2003 5(31): 519-22

- Eleutherococcus senticosus extract was applied to cells in culture resulting in a slight radioprotective effect. American Journal Chinese Medicine. 1981 (9) 48-56

- Eleutherococcus senticosus provided anti-proliferative effects against L1210 murine leukemia cells and suggests that it may be useful for reducing the concentration of conventional anti-metabolites used for their anti-proliferative effects on tumor cells. Journal Pharmacological Science. 1984 Feb; 73(2): 270-2

- Eleutherococcus senticosus aqueous extract of eleutheroside E may have contributed to the anti-fatigue action, recovery of the reduction of NK activity and inhibition of corticosterone elevation induced by swimming stress. Journal of Ethnopharmacology. 2004 Dec;95(203):447-53

Clinical summary: Although initial reports from the Soviet Union and reviews of that literature by Farnsworth suggested therapeutic value of Eleutherococcus senticosus as an adaptogen, very little current research has been done to substantiate those findings. It is now being recommended that the term "adaptogen" be discontinued and further research be done on this plant to confirm potential therapeutic value in these areas: Anti-oxidant, anti-cancer, immunostimulatory, anti-inflammatory, hypocholesterolemic, cholorectic, anti-pyretic and anti-bacterial actions.

Journal of Ethnopharmacology. 2004 Dec;95(203):447-53

Adverse effects: toxicity studies in animals demonstrated that 33% ethanol extract of E. senticosus is virtually non-toxic; it is very well-tolerated in humans and side-effects are quite minimal; very high doses may produce insomnia, irritability, melancholy and anxiety. Economic and Medical Plant Research 1, 156-215, Farnsworth, 1985The Healing Power of Herbs, Murray; Three Rivers Press, New York, 1995, pp.315-20)

Herb/drug interactions: none discovered

SCIENTIFIC NAME: NASTURTIUM OFFICINALE (BRASSICACEAE)

Common name: Watercress, Berro

Historical use: Like sorrel, watercress has been used historically as a salad green and spring tonic.

Biologically active constituents and proposed mechanisms of action:

Contains 47 biologically active chemicals (Dr. Duke's Phytochemical and Ethnobotanical Databases) accessed 1/09. The most biologically active constituent of watercress for cancer is phenethyl isothiocyanate (PEITC). Watercress may have exceptionally good anticarcinogenic potential as it combines a potent inhibitor of Phase 1 enzymes (PEITC) with at least three inducers of phase II enzymes (PEITC, 7-methylsulfinylheptyl ITC and

8-methylsulfinyloctyl ITC. These compounds act at three stages of carcinogenesis in that they:

1. Inhibit carcinogen activation
2. Induce phase II enzymes and enhance excretion of the potential carcinogens and
3. Induce apoptosis via activation of protein kinase pathway.

The putative anticarcinogenic activity of ITC is consistent with the results of epidemiological studies, which have suggested a reduction in cancer risk through the consumption of cruciferous vegetables. Carcinogenesis. 2000 21(11) pp. 1983-88

- PEITC: PEITC selectively affects xenobiotic-metabolizing enzymes in the liver, lung and nasal mucosa and is especially effective in inhibiting the cytochrome p450 dependent oxidation of NNK in the lung and NDMA in the liver of rats. Carcinogenesis. 1992 13(12) pp.2205-2210
- PEITC: PEITC was found to be a very potent inhibitor of N-nitrosobenzylmethylamine-induced rat esophageal carcinogenesis. Cancer Research. 1991 51, pp. 2063-2068.

Clinical summary: Watercress contains high levels of the glucosinolate, *gluconasturtiin*, which is hydrolyzed to phenethylisothiocyanate (PEITC) upon pulverization of the leaves. It is also a rich source of vitamins A and C, sulfur, iodine, calcium and manganese. Several animal and human studies have demonstrated that PEITC inhibits lung tumors induced by NNK (from tobacco smoke). It also activates detoxification enzymes in cancerous cells. Indoles present in watercress are antiestrogenic and dispose of excess estrogen, which may help prevent hormone related cancers.

American Botanical Council HerbClip ™

Adverse reactions: none discovered

Drug/herb interactions: none discovered

C. "BioMixx"

Four of the main ingredients of Daniel Chapter One's "BioMixx" formula, Whey protein, Astragalus membranaceus, Camellia sinensis and Eleutherococcus senticosus are listed, and a brief selection of the scientific evidence of the activity of their constituents is presented.

WHEY PROTEIN

Whey Protein: Whey is a co-product of cow's milk in the manufacture of cheese and in recent years has become a functional food. The two primary sources of protein in milk are the caseins and whey. After processing occurs, the caseins are the proteins responsible for making curds, while the whey remains in an aqueous environment. The components of whey include:
Beta-lactoglobulin, alpha-lactalbumin, bovine serum albumin, lactoferrin, immunoglobulins, lactoperoxidase, enzymes, glycomacropeptides, lactose, and minerals. Today whey is a popular dietary protein supplement purported to provide antimicrobial activity, immune modulation, improved muscle strength and body composition, and prevention of cardiovascular disease and osteoporosis. Alt Med Rev. 2008 Dec; 4(13); 341-7

Whey Protein Constituents:

Whey protein contains all the essential amino acids in higher concentrations than vegetable protein sources. They are efficiently absorbed and utilized relative to free amino acid solutions.
Whey proteins have a high concentration of Branched chain amino acids (BCAA): isoleucine, leucine, valine, which are important factors in tissue growth and repair. Whey proteins are also rich in the sulfur-containing amino acids cysteine and methionine, which enhance immune function through intracellular conversion to glutathione, one of the most important antioxidants in the cell. Crit Food RevSci Nutr 2002;42: 353-75

Mechanisms of Action:

Whey has potent antioxidant activity, likely by contributing cysteine-rich proteins that aid in the synthesis of glutathione (GSH), a potent intracellular antioxidant. Crit Food Rev Sci Nutr 2002;42: 353-75

Detoxification:

Practitioners use whey protein as a source of cystein to increase intracellular glutathione levels. As a detoxifying agent, glutathione peroxidase (GSHPx), which is derived from selenium and cysteine, is an endogenous antioxidant enzyme that converts lipid peroxides into less harmful hydroxy acids. In addition to the above mentioned properties, the alpha-lactalbumin component of whey chelates heavy metals and reduces oxidative stress because of its iron chelating properties. Toxicology 1999; 137:169-184 and J Nutr Biochem 2003: 14:251-8

Immune enhancement:

An *in vitro* study demonstrated that bovine-milk derived IgG suppresses human lymphocyte proliferative response to T cells and conclude that it is likely to confer immunity that could be carried to humans. Int Arch Allergy Appl Immuno 1993:4:231-9

Alpha-lactalbumin also has direct effect on B-lymphocyte function, as well as suppressing T-cell dependent and independent responses. J Nutr 1985;114:1403-8

Clinical indications:

Whey's amino acid profile makes it useful for enhancing body composition, supporting protein synthesis and building lean body mass. For these reasons it has been used in patients with diabetes, obesity, cardiovascular disease, to support pediatric bowel health, and to improve glutathione levels

in individuals infected with HIV and in cancer. Alt Med Rev. 2008 Dec; 4(13); 341-7

- Whey protein concentrates have been researched extensively with respect to cancer prevention and treatment, and glutathione stimulation is thought to be the primary immune-modulating mechanism. Alt Med Rev. 2008 Dec; 4(13); 341-7

- The amino acid precursors to glutathione in why might increase glutathione levels in tissues, stimulate immunity and detoxify potential carcinogens. Anticancer Res 2000; 20:4785-92
- Several animal studies have been assessed the effect whey's immune enhancing components, especially lactoferrin and beta-lactoglobulin. In an animal model of colon cancer, animals given whey components demonstrated significantly lower incidence of tumors and fewer aberrant crypts. Cancer Epidemiol Biomarkers Prev 2000;9: 113-7 Cancer Epidemiol Biomarkers Prev 2001: 10:555-8 Jpn J Cancer Res 1997: 88:523-6
- Fractionated whey had the ability to reduce oral mucositis in hamsters via induction of TGF-beta. Oral Oncol 2002; 38: 478-85

Side Effects and Toxicity:

- Individuals with known allergy to milk may not tolerate why, but many dairy sensitive individuals find that casein is the culprit and not whey, especially if it is hydrolyzed and therefore less allergenic. Most whey proteins have been processed to remove lactose and so those who are lactose intolerant may tolerate hydrolyzed whey protein. Alt Med Rev. 2008 Dec; 4(13); 341-7

SCIENTIFIC NAME: ASTRAGALUS MEMBRANACEUS (FABACEAE)

Common name: Yellow root, huang qi (pin yin)

Historical use: Astragalus has been used in Traditional Chinese Medicine for thousands of years as an immune stimulant and qi tonic (adaptogen).

Clinical Summary: Astragalus has been used to support and enhance immune function and is still widely used in China and by acupuncturists for chronic immune conditions like chronic hepatitis and as an adjunctive therapy in cancer. Astragalus extracts have been shown to possess cytostatic properties, inhibit tumor growth and in vitro, animal and anecdotal human data show that astragalus reduces immune suppression resulting from chemotherapy. Astragalus-based herb formulas may enhace the effect of platinum-based chemotherapy. http://www.mskcc.org/mskcc/html/69128.cfm

Biochemically active constituents and known mechanisms of action:

To date, 38 biologically active constituents of Astragalus membranaceus have been isolated. The most biologically active compounds in Astragalus are the triterpene saponins (astragalosides I-X), polysaccharides and isoflavones.

- Because Astragalus memebranaceus is used as immunomodulating agent in treating immunodeficiency diseases and to alleviate the adverse effects of chemotherapeutic drugs, the anti-carcinogenic effects of Astragalus saponin extract were investigated in HT-29 human colon cancer cells and tumor xenograft. Our findings have shown that Astragalus saponins (AST):
    - inhibits cell proliferation through accumulation in S phase and G2/M arrest, with concomitant suppression of p21 expression and inhibition of cyclin-dependent kinase activity.
    - promotes apoptosis in HT-29 cells through caspase 3 activation and poly(ADP-ribose) polymerase cleavage, which is indicated by DNA fragmentation and nuclear chromatin condensation.
    - demonstrates an anti-tumorigenic effects in vivo, of which the reduction of tumor volume as well as pro-apoptotic and anti-proliferative effects in HT-29 nude mice xenograft are comparable with that produced by the conventional chemotherapeutic drug 5-fluorouracil (5-FU).
    - reduced the side effects (body weight drop and mortality) associated with the drug combo 5-FU and oxaliplatin are not induced by AST.
    - These results indicate that AST could be an effective chemotherapeutic agent in colon cancer treatment, which might also be used as an adjuvant in combination with other orthodox chemotherapeutic drugs to reduce the side effects of the latter compounds. Carcinogenesis 2007 28(6):1347-1355; doi:10.1093/carcin/bgl238

- A partially purified fraction (F3) with an estimated molecular weight of 20,000 to 25,000 derived from the traditional Chinese medicinal herb Astragalus membranaceus, was found to possess a potent immunorestorative activity in vitro.

These data indicate that F3 administration markedly enhances the rats' ability to reject the xenogeneic graft and therefore possesses a strong immune potentiating activity in vivo. These preclinical data also provide the rational basis for the use of extracts of Astragalus membranaceus in phase I clinical trials among patients suffering from iatrogenic or inherent immune deficiency states. J Clin Lab Immunol. 1988 Mar;25(3):125-9.

- Meta-analysis: Astragalus has been shown to have immunologic benefits by stimulating macrophage and natural killer cell activity and inhibiting T-helper cell type 2 cytokines. Many published studies have assessed the use of Astragalus and other Chinese herbal medicines in combination with chemotherapy. We sought to evaluate evidence from randomized trials that Astragalus-based Chinese herbal medicine combined with platinum-based chemotherapy (versus platinum-based chemotherapy alone) improves survival, increases tumor response, improves performance status, or reduces chemotherapy toxicity.
  Results: Of 1,305 potentially relevant publications, 34 randomized studies representing 2,815 patients met inclusion criteria. Twelve studies (n = 940 patients) reported reduced risk of death at 12 months (risk ratio [RR] = 0.67; 95% CI, 0.52 to 0.87). Thirty studies (n = 2,472) reported improved tumor response data (RR = 1.34; 95% CI, 1.24 to 1.46). In subgroup analyses, Jin Fu Kang in two studies (n = 221 patients) reduced risk of death at 24 months (RR = 0.58; 95% CI, 0.49 to 0.68) and in three studies (n = 411) increased tumor response (RR = 1.76; 95% CI, 1.23 to 2.53). Ai Di injection (four studies; n = 257) stabilized or improved Karnofsky performance status (RR = 1.28; 95% CI, 1.12 to 1.46).
  Conclusion: Astragalus-based Chinese herbal medicine may increase effectiveness of platinum-based chemotherapy when combined with chemotherapy. These results require confirmation with rigorously controlled trials.
  Journal of Clinical Oncology, Vol 24, No 3 (January 20), 2006: pp. 419-430

Adverse reactions: none known

Herb/Drug Interactions:

- Immunosuppresants: Astragalus may antagonize the effects of immunosuppressants such as tacrolimus and cyclosporine.
- Aldesleukin: Concomitant treatment with astragalus has resulted in a 10-fold potentiation of tumor-cidal activity with decreased side effects.
- Cyclophosphamide: Astragalus may decrease immunosuppression following treatment.

http://www.mskcc.org/mskcc/html/69128.cfm (1) (14) (15)

SCIENTIFIC NAME: CAMELLIA SINENSIS (Theaceae)

Common name: Green tea

Historical use: Green tea has been a preferred beverage throughout Asia for millennia. It has a small amount of theophylline that provides a slight stimulatory effect. Its mild flavor allows it to be blended with other components (jasmine flowers) or toasted rice, soy or corn to create a variety of pleasant flavors.

Clinical Summary: Because green tea contains numerous polyphenols, it has potent antioxidant actions its use is associated with cardioprotective, neuroprotective and chemoprotective effects. It has been used to lower cholesterol, lipids, Epidemiologic studies show an inverse relationship between consumption of tea, especially green tea, and development of cancers. Numerous in vivo and in vitro studies indicate strong chemopreventive effects for green tea and its constituents against cancers of various organs.

Biochemically active constituent and proposed mechanisms of action:

The polyphenolic flavonoids are the major biologically active constituents: catechin, epicatechin, epicatechin gallate, epigallocatechin 3-gallate (EGCG), sinecatechin, and proanthocyanadins.

Recent studies demonstrate the following clinical outcomes:

- Epigallocatechin 3-gallate (EGCG) is a well-known chemoprevention factor that triggers apoptosis in cells going through the p53 dependent pathway. Cancer Res 2008;68(11);4150-62

- EGCG and EGC are capable of altering AhR transcription and are responsible for most, if not all, of the AhR antagonist activity of GTE, thus offering an insight to how it prevents tobacco related carcinogenesis. Chem Res Toxicol. 2003;16(7);865-872
- ECGC inhibits the growth of human squamous carcinoma, breast carcinoma and colon carcinoma cells and is associated with rapid inhibition of activation of RTKs,EGRF, HERR2 and HER3 inhibition of activation or the expression of several downstream signaling molecules involved in cell proliferation and survival. Therefore, ECGC or Poly E may be useful when used alone or in combination with other agents in the prevention and treatment of colon and other types of human cancer. AACR Conf Front Canc Res Prevent. Nov 12-15, 2006
- ECGC inhibits cancer cell growth through the inhibition of IGF-1and VEGF receptors, inhibits the Ras/MAPK and P13K/Akt signaling pathways, thereby modulating the expression of target genes, which are associated with induction of apoptosis and cell cycle arrest in cancer cells. Int. J. Mol. Sci. 2008, Volume 9(6), Page 1034-1049

Adverse reactions: Nausea and GI upset have been reported

Herb/Drug Interactions: theoretically, large amounts of green tea may inhibit Vitamin K absorption, thus antagonizing the effects of anticoagulants; may reduce absorption of atropine; may reduce bioavailability of iron and codeine.

http://www.mskcc.org/mskcc/html/69247.cfm

SCIENTIFIC NAME: ELEUTHEROCOCCUS SENTICOSUS (Araliaceae):

Common Names: Siberian ginseng, Eleuthero ginseng, Ci Wu Jia (pin yin); Acanthopanax senticosus

Historical use: Eleutherococcus senticosus has been used for thousands of years in the Traditional Chinese Materia Medica as a kidney tonic to increase longevity, improve general health and appetite. In 1958, the Russian scientist Brekhman coined the term "adaptogen" as a substances that 1) must be innocuous and cause minimal disorders in the physiological functions of an organism, 2) must have a non-specific action (i.e., it

should increase the resistance to adverse influences by a wide range of physical, chemical and biochemical factors), and 3) usually has a normalizing action irrespective of the direction of the pathological state (alterative action). The Healing Power of Herbs, Murray; Three Rivers Press, New York, 1995, pp.315-20)

Farnsworth and colleagues reviewed data on an Eleutherococcus senticosus root extract administered to over 2,100 human subjects to assess the adaptogenic effects of ginseng and concluded that it:

1. Increased ability of humans to withstand adverse physical conditions (heat, noise, motion, workload increase, exercise and decompression), and
2. Increase mental alertness and work output, and
3. Improved quality of work produced under stressful conditions, and athletic performance.

Farnsworth and colleagues reviewed data on an Eleutherococcus senticosus root extract administered to over 2,200 human subjects to assess its adaptogenic effect in disease states and concluded that it appears to be effective in:

1. Atherosclerotic conditions in that it can lower serum cholesterol levels, reduce blood pressure and eliminate angina symptoms in human subjects;
2. Improving kidney function and regulating blood pressure in patients with acute kidney infection
3. Improved sense of well-being of psychological complaints (insomnia, hypochondriasis, neuroses) possibly through regulation of biogenic amine content in the brain.

Economic and Medical Plant Research 1, 156-215, Farnsworth, 1985
The Healing Power of Herbs, Murray; Three Rivers Press, New York, 1995, pp.315-20)

Biologically active constituents and proposed mechanisms of action:

To date, at least 51 biologically active constituents in Eleutherococcus have been identified (Dr. Duke's Phytochemical and Ethnobotanical Database) accessed 1/09. The main active constituents are the eleutherosides, though very little current research is available. Below are some of the highlights:

- Eleutherococcus senticosus demonstrated immunomodulatory properties (enhanced

the cellular response of the mouse immunological system (chemokinetic activity of mice spleen cells, GvH reaction), as well as a stimulatory effect of Eleutherococcus on the humoral response (antibody production) in mice. Pol Journal Vet Science 2003;6(3 Suppl):37-9.

- Eleutherococcus senticosus, as part of a formula (AdMax) was evaluated for its effect on ovarian cancer patients. In patients who took AdMax, the mean numbers of 4 T cell subclasses were increased, the mean amounts of IgG andIgM were incrased and the results suggest that the combination of extracts from adaptogenic plants may boost the suppressed immunity in ovarian cancer patients who are subject to chemotherapy. Phytotherapy Res. 2006 May; 20(5): 424-5

- Standardized extracts of Eleutherococcus senticosus at generally recommended doses for over-the-counter use are unlikely to alter the disposition of co-administered medications primarily dependent of CY2D6 or CYP3A4 pathways for elimination. Drug Metab Disp. 2003 5(31): 519-22

- Eleutherococcus senticosus extract was applied to cells in culture resulting in a slight radioprotective effect. American Journal Chinese Medicine. 1981 (9) 48-56

- Eleutherococcus senticosus provided anti-proliferative effects against L1210 murine leukemia cells and suggests that it may be useful for reducing the concentration of conventional anti-metabolites used for their anti-proliferative effects on tumor cells. Journal Pharmacological Science. 1984 Feb; 73(2): 270-2

- Eleutherococcus senticosus aqueous extract of eleutheroside E may have contributed to the anti-fatigue action, recovery of the reduction of NK activity and inhibition of corticosterone elevation induced by swimming stress. Journal of Ethnopharmacology. 2004 Dec;95(203):447-53

Clinical summary: Although initial reports from the Soviet Union and reviews of that literature by Farnsworth suggested therapeutic value of Eleutherococcus senticosus as an adaptogen, very little current research has been done to substantiate those findings. It is now being recommended that the term "adaptogen" be discontinued and further research

be done on this plant to confirm potential therapeutic value in these areas: Anti-oxidant, anti-cancer, immunostimulatory, anti-inflammatory, hypocholesterolemic, cholorectic, anti-pyretic and anti-bacterial actions.

Journal of Ethnopharmacology. 2004 Dec;95(203):447-53

Adverse effects: toxicity studies in animals demonstrated that 33% ethanol extract of E. senticosus is virtually non-toxic; it is very well-tolerated in humans and side-effects are quite minimal; very high doses may produce insomnia, irritability, melancholy and anxiety. Economic and Medical Plant Research 1, 156-215, Farnsworth, 1985The Healing Power of Herbs, Murray; Three Rivers Press, New York, 1995, pp.315-20)

Herb/drug interactions: none discovered

D. "BioShark"

History of use: In 1971, Judah Folkman, MD published his work on angiogenesis and cancer in the New England Journal of Medicine. Robert Langer, PhD at MIT followed with the observation that bovine cartilage could inhibit neovascularization of solid tumors. Dr. John Prudden demonstrated that bovine cartilage could inhibit the in vitro growth of osteosarcoma and human myeloma cultured cells. Dr. Prudden developed Catrix, a bovine tracheal cartilage, and began treating end-stage cancer patients in 1972. This therapy exerted a major inhibitory effect on a variety of cancers but did not eliminate them completely. In 1983, Langer began work comparing shark cartilage to bovine cartilage, reporting the same amount of shark cartilage contained 1000 times the quantity of anti-angiogenic factor as did bovine cartilage.

Initial studies in mice by William Lane, PhD showed dramatic results of a decrease in tumor weight of 40% in the treated animals compared to a 2.5 fold increase in tumor weight of the untreated group. Dr. Lane outlined a case report of 8 humans in stage III and IV cancer utilizing 30 grams/day of shark cartilage taken as enemas, which produced very encouraging results. A human clinical trial of 29 patients suffering from stage IV and V cancers that had failed conventional therapies was begun. At the end of 16 weeks

of rectal enemas at a dose of one gram of powdered shark cartilage per 2 pounds of body weight, some patients had marked reduction in tumor size and reduced vascularization of the tumor tissue and tissue adjacent to the tumor. Many patients reported a reduction in pain and an improved sense of well-being.
Townsend Letter for Doctors: Review article Aug/Sept. 1994

In 1994, a Phase 2 human clinical controlled trial was sanctioned by the FDA and conducted by Dennis Miller, MD et al at Cancer Treatment Centers of America. The results of this 60 patient study concluded that under the specific conditions of this study, shark cartilage as a single agent was inactive in patients with advanced-stage cancer and had no salutary effect on the quality of life. J Clin Oncol. 1998 Nov;16(11):3649-55.

The challenge with this and other human clinical trials in cancer patients is that the only candidates for therapy are those who are end-stage and have failed conventional treatments. This obviously eliminates candidates who have a strong and functional immune system.

In 2008, researchers isolated two partially purified anti-angiogenesis proteins from shark cartilage that were demonstrated to block microvessel sprouting in the collagen-embedded rat aortic ring assay in vitro and inhibition of capillary sprouting in the CAM assay in vivo. Bioscience Reports (2008) 28, (15–21)

Cartilage in general, and shark cartilage in particular, have demonstrated inhibition of angiogenesis in cell cultures and animal studies. The shark cartilage that has been used in most studies was a highly purified protein derivative. The particularly high doses used, distinct fishy flavor and difficulty with routes of administration present unique challenges with this therapy in humans.

VI. SUMMARY AND CONCLUSIONS

Based on my experience and expertise, as well as the research cited above, I hold the following opinions:

A. There is a reasonable basis to claim that the ingredients of GDU contain bromelain, a source of natural proteolytic enzymes from the pineapple, which helps digest unwanted proteins. GDU also contains turmeric, feverfew and quercitin, which help to reduce inflammation and relieve pain. Next, it is reasonable to claim that these ingredients as a whole may be used as an adjunct to cancer therapy, and that the ingredients possess a wide range of actions as anti-inflammatory agents.

B. There is a reasonable basis to claim that the ingredients of 7 Herb Formula fight tumor formation, and fight pathogenic bacteria.

C. There is a reasonable basis to claim that the ingredients of BioMixx boost the immune system, build lean body mass and support healing. It is also reasonable to claim that these ingredients assist the body in fighting cancer, cachexia and in healing the destructive effects of radiation and chemotherapy treatments."

D. There is a reasonable basis for the claims that pure skeletal tissue of sharks provides a protein that inhibits angiogenesis – the formation of new blood vessels. It is also reasonable to claim that angiogenesis has been demonstrated to inhibit tumor growth in some studies.

February 4, 2009

Sally LaMont ND, LAc

Sally LaMont, N.D. L.Ac.

Exhibit
4

REPORT OF EXPERT WITNESS JAMES DUKE
James A. Duke, PhD, Botany
Economic Botanist, US Department of Agriculture (retired)
In the Matter of Daniel Chapter One
FTC Docket #9329

I. QUALIFICATIONS

See attached CV.

II. SCOPE OF WORK

Review and offer opinion supported by evidence and experience on the ingredients of the challenged products; to review the science of herbal efficacy; and to clarify the complex nature of herbal science versus the relatively simple science of pharmaceuticals.

Compensation: $350.00 per hour or $2500.00 per day, plus expenses

Prior Expert Testimony: No expert testimony in the last four years.

III. MATERIALS CONSIDERED

A. James Duke Biblical Publications:

Duke, JA. 1983. *Medicinal Plants of the Bible*. Conch Publications. NY. 233 pp.

Duke, JA. 1999. *Herbs of the Bible: 2,000 Years of Plant Healing*. Interweave Press, Loveland, CO. 256 pp.

Duke, JA. 1999. *Herbs of the Bible: 2,000 Years of Plant Healing*. Interweave Press, Loveland, CO. 256 pp. Reprinted Whitman Publications, Duke, Jim. 2000. Herbs of the Bible. *New Living* (June), p. 7.

Duke, JA. 2000. PARACELSUS: Wild Lettuce: A Bitter Herb of Biblical Proportions. *J. Med. Food* 3(3):153-4.

Duke, JA. 2002. Food Farmacy Forum. Some Biblical Herbs. *The Wild Foods Forum* 13(1):8-9.

Duke, JA. 2006. Food Farmacy: Biblical Herbs vs. Pharmaceuticals (Keynote), pp. 51-52 in Medicines from the Earth 2006. (Jun 2-Jun 6, 2006). Official Proceedings Gaia Herbal Research Institute. Brevard NC. 199 pp.

Duke, JA, duCellier, J, and Duke, PA. 2008. *Duke's Handbook of Medicinal Plants of the Bible*. CRC Press, Boca Raton, FL.

Duke, J. A. 1983. *Medicinal Plants of the Bible*. 233 pp. TradoMedic Books, Buffalo, NY. Treats over 100 Biblical species, with illustrations mostly by Peggy K. Duke. Apparently out of print.

Duke, J.A. 1999. *Herbs of the Bible - 2000 Years of Plant Medicine*. Interweave Press, Loveland CO. 241 pp.. $34.95. ISBN 1-883010-66-7

B. Other James Duke Herbal Publications:

Duke, J. A. 1997. *The Green Pharmacy*. Rodale Press, Emmaus, PA 18098-0099. 507 pp. ISBN 0-87596-316--1(hardcover)ISBN-57954-124-0 (paperback)

Duke, J. A. 1999. *Dr. Duke's Essential Herbs* (13 Vital Herbs You Need to Disease-proof your Body - Boost your energy - Lengthen your Life). Rodale Press. Emmaus, PA 18098. 240 pp. $24.95 ISBN- 1-57954-183-6 (Hard Cover)

Duke, J. A. 2000. *The Green Pharmacy Herbal Handbook*. Rodale Press. 282 pp. $19.95 ISBN- 1-57954-184-4

Duke, J. A. 2001. With Michael Castleman. The Green Pharmacy Antiaging Prescriptions - Herbs, Foods, and Natural Formulas to Keep you Young. Rodale Press, 560 pages. Emaus, Pa. $29.95. ISBN 1-57954-198-4(Hardcover)

Duke, JA, Bogenschutz-Godwin, MJ, DuCellier, J and Duke, PA. 2002. *CRC Handbook of Medicinal Plants*. 2nd. Ed. CRC Press, Boca Raton, FL. 936 pp

Duke, JA, Bogenschutz-Godwin, MJ, DuCellier, J and Duke, PA. 2002. *CRC Handbook of Medicinal Spices*. CRC Press, Boca Raton, FL. 348 pp. $119.95. ISBN-0-8493-1279-5

Phytochemical Database: http://www.ars-grin.gov/duke

The Green Pharmacy at: http://www.mothernature.com/Library/Bookshelf/index.cfm

C. See Appendix I for additional materials relied on.

IV. SUMMARY OF OPINION

1. There is a reasonable basis for the claims that the ingredients of 7 Herb Formula "..., fights tumor formation, and fights pathogenic bacteria."

2. There is a reasonable basis for the claims that the ingredients of GDU "contains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein -- even that of unwanted tumors and cysts. This formula also helps to relieve pain and heal inflammation. . GDU is also used for. . .and as an adjunct to cancer therapy. GDU possesses a wide range of actions including anti-inflammatory and antispasmodic activity. . ."

3. There is a reasonable basis for the claims that the ingredients of BioMixx "boosts the immune system, ...to allow for natural healing. It is used to assist the body in fighting cancer and in healing the destructive effects of radiation and chemotherapy treatments."

V. ANALYSIS AND FINDINGS

I base my conclusions, from my experience and knowledge, on three analytical points:

First, herbal based and nutritional food information can be drawn from the Bible.

Second, herbs, including those from the Bible provide help to the health of people that can be as good as or superior to help provided by pharmaceuticals.

Third, significant science, as set out below, supports herbal use, and a system – which I call a third arm to a standard pharmaceutical study—could establish the value of herbs to the scientific gold standard urged by conventional science.. Without an approach like the third arm approach, it will never be possible to find sufficient resources to run classical pharmaceutical studies on whole herbs, let alone to evaluate the hundreds of single chemical entities in each herb.

In the meantime the public should not be denied access to the information available that certain herbs have credible evidence that they contribute to healing, even for conditions such as cancer. In the absence of resources for massive studies we have to rely on the less expensive science set out below.

1. The Science of Herbs:

I begin with the third point first. Here are three ways I use to establish the efficacy of an herb: one is the Multiple Activities Menu's (MAM's), the second is Indications Evaluations (IE's), and the third is 60 abstracts in PubMed. I am only presenting ways one and two here.

A. The MAM is a listing, recognized worldwide, which I have created and maintained for over 20 years on the United States Department of Agriculture (USDA) website. Information is put into the website about the relationship between an herb and a condition.—in this case cancer. Then the information is drawn out for a review of the current scientific status of the herb in question.

The following are Multiple Activities Menu's (MAM's) for 16 DCO herbs and their relation to cancer as recorded in the USDA website. These can be done online at my USDA website.

DANIEL CHAPTER ONE HERBS MAM's:

MAM: *Actaea (Cimicifuga) racemosa* (Black cohosh) for Cancer (15/14=1.07)
MAM: *Allium sativum* (Garlic) for Cancer (347/147=2.36)
MAM: *Ananas comosus* (Pineapple) for Cancer (73/79=0.92)
MAM: *Arctium lappa* (Burdock) for Cancer (98/61=1.61)
MAM: *Astragalus membranaceus* (Huang qi) for Cancer (110/26=4.23)
MAM: *Camellia sinensis* (Green Tea) for Cancer (483/457=1.06)
MAM: *Curcuma longa* (Turmeric) for Cancer (213/66=3.28)
MAM: *Eleutherococcus senticosus* (Eleuthero) for Cancer (163/43=3.79)
MAM: *Glycine max* (Soybean) for Cancer (483/457=1.06
MAM: *Nasturtium officinale* (Watercress) for Cancer (3/5=0.6)

MAM: *Rheum palmatum* (Chinese Rhubarb) for Cancer (85/21=4.05)
MAM: *Rumex acetosella* (Sheep sorrel) for Cancer (11/27=0.41)
MAM: *Smilax sarsaparilla* (Sarsparilla) for Cancer (0/13=0)
MAM: *Tanacetum parthenium* (Feverfew) for Cancer (88/19=4.63)
MAM: *Ulmus rubra* (Slippery Elm) for Cancer (4/17=0.24)
MAM: *Uncaria tomentosa* (Cat's Claw) for Cancer (79/31=2.55)

The number on the right hand side of the "/" is the number of cancer affecting aspects of the herb being evaluated.

See Appendix II for detailed presentation of the MAM's for DCO herbs, such as the following one for Turmeric, presented as an example. (Turmeric, one of the 16 DCO herbs, would certainly be in my meals were I subject to cancer, and I am genetically targeted for colon cancer. Turmeric's curcumin is probably better than Celebrex, which like other synthetic COX-2-I's was once touted off-label for the prevention of colon cancer. There are 66 indications of Turmeric affecting cancer in this MAM. Some are bolded.)

Curcuma longa (Turmeric)
(One of the top 5 medicinal spices, with some anticancer activities, proven to my satisfaction)

INDICATIONS (TURMERIC): Abscess (fl; FNF; TRA); `Achlorohydria (1; KHA); `Adenocarcinoma (1; `HOS; MES); Adenoma (1; `HOS; MES; X7954412); Adenopathy (1; DAD; JLH; X16737669 X7954412); `Alcoholism (1; `TEU; X16691314); Allergy (fl; TUR; WAM; X17569221); X17211725); Alzheimer's (1; COX; FNF); Amenorrhea (fl; BGB; PH2; `TEU; WHO); `Anemia (f; TUR); **Anorexia (fl2;** BGB; BIB; BRU; PHR; PH2; TUR; X17569218); Arthrosis (fl; COX; KAP; MAB; WAM; WHO; X16781571); Asthma (fl; FAJ; MAB; TUR; WHO; `X17569221); X17211725); Atherosclerosis (1; MAB; SKY; VAD; JMF8:246; `X18602074; X17211725); Athlete's Foot (1; FAJ; FNF); `Atony (f; DEP); \Bacillus (1; X10552805); \Bacteria (1; X10552805); `Biliouness (fl; KAB; TUR; VAD); Bite (f; BIB; `DEP; PH2); Bleeding (f; PH2); Boils (fl; DAD; WHO); \Bowen's Disease (1; X11712783); Bronchosis (f; BIB; `DEP; PH2); Bruise (f; DAV; `DEP; IHB; PED; PH2; TUR; WHO); `Burlitt's Lymphoma (1; X18852135); Bursitis (1; SKY); Cancer (fl; JLH; MAB; X17211725); **Cancer, abdomen (1; COX; FNF; JLH); \Cancer, bladder (fl; X18342436; X16596191; X11712783); Cancer, breast (fl; COX; FNF; MAB; MES; TUR; `X19138983; X17448598; X16781571); \Cancer, cervix (fl; TUR; X17448598;**

X11712783); Cancer, colon (f1; COX; FNF; JLH; JNU; MES; `X X18794115; X18423603; 17448598; X17201158; X17044774; X16820928; X16781571; X16737669; X16712454); Cancer, duodenum (f1; `TEU; X7954412); `Cancer, epithelium (1; X17448598); \Cancer, esophagus (f1; JAC7:405; `TEU; TUR); `Cancer, intestine (f1; JLH; `TEU; TUR); Cancer, joint (f1; JLH; MAB); Cancer, kidney (f1; JLH; TUR); \Cancer, liver (f1; `TEU; JAC7:405); \Cancer, lung (f1; TUR; X16521985); Cancer, mouth (f1; COX; FNF; JLH; TUR; `X 17448598;); Cancer, nose (f1; COX; FNF; JLH); Cancer, ovary (f1; JLH; X17174384; X163765850); `Cancer, pancreas (1;18347134 `X 17448598; X17440100) Cancer, prostate (f1; JLH; MES; TUR; `X 17448598; X17332930); Cancer, rectum (1; X17044774); Cancer, sinew (f1; COX; FNF; JLH); \Cancer, skin (f1; MES; `TEU; X16781571 X16712454; X7954412); \Cancer, stomach (f1; TUR; JAC7:405; X17448598; X16712454); \Cancer, uterus (f1; `TEU; X11712783);` Candida (f1; TUR); `Carcinoma (1; TUR); Cardiopathy (f1; AKT; MAB; TUR; `X15622377; `X19153099); Cataracts (f1; MAB; `TEU); Catarrh(f; `DEP; UPW); `Cerebrosis (1; `TEU); `Cervical Dysplasia (1; WAF); Chestache (f; PH2); `Chickenpox (f; TUR); Childbirth (f; DAD); **Cholecocystosis (12;** APA; KOM; PHR; SHT; TUR; VAD; WHO; `JAF51:6802); `Cholera (f; SKJ); \Circulosis (f; BOW); Cold (f; `DEP; KAP; NPM; PH2); Colic (f; APA; PED; PH2; TUR); `Colitis (1; X17429738; X17276891 ); Coma (f; DAD); Congestion (f; APA; BIB;`DEP); Conjunctivosis (f; KAB; MAB; PH2; SKJ; SUW; `TEU), Constipation (f; PH2; `X18484280;); `Convulsion (f; IHB); `COPD (1; X17569221) Coryza (f; `DEP; KAB); `Cough (f; NPM); Cramp (f1; AKT; BIB; DAD); `Crohn's (1; X16387689);`Cystic Fibrosis (1; X16239599); Cystosis (f; PH2); `Depression (f 1; X18420184;` X17955367; X16504000; X17134862; X17022948; X16651723; X16171853); `Dermatomycosis (1; `TEU); Dermatosis (f1; AKT; `DEP; MAB; PH2; SUW; `TEU; WHO; WOI; `X18484280; ); \Diabetes (f1; BOW; JMF8:251; `X18484280; X17226069); Diarrhea (f1; APA; `DEP; IHB; WHO; `X18484280;); `Dipsomania (1; (X16691314); Dropsy (f; DAD); Duodenosis (1; X7954412); `Dysentery (f; IHB); Dysgeusia (f; `HOS; KAB); `Dyskinesia (f 1; VAD; X18022680); `Dyslactea (f; SKJ); Dysmenorrhea (f1; AKT; APA; DLZ; FAJ; PED; WHO; 17569218); **Dyspepsia (f12;** KOM; MAB; PH2; SKJ; WHO; `X18484280); Dysuria (f; ADP; DAD); `EBV (1; `HOS; TUR); Eczema (f1; BGB; FAJ; KAP; MAB; `TEU); Edema (f1; KAP; PH2; `TEU); Elephantiasis (f; DAD); `Embolism (X18611416; X18826584)`Encephalomyelitis (1; TUR); Enterosis (f1; AKT; DAD; PH2; `TEU; WHO); Epilepsy (f; WHO; X16028990); Epistaxis (f; DAD; PH2); `Epithelioma (1; X17448598); `Escherichia (1; TUR); \Esophagosis (1; JAC7:405); Fever (f1; APA; BIB;`DEP; COX; `TEU; TUR); Fibrosis (1; BGB; MAB; X17569221; X19152370); `Fistula (f; SKJ);`Fit (f; DEP); Fungus (f; BIB; PH2); Gallstones (f1; APA; MAB; `TEU); Gas (f1; APA; IHB; PH2; TUR); Gastrosis (f1; PH2; VAD); `Gingivosis (1; X18929638); Glioma (1; X17562168 ;X17395690); Gonorrhea (f; BIB; KAB); Grey Hair (f; HAD); \Fungus (1; LIB); Headache (f; PH2); `Helicobacter (1; TUR); `Heartburn (f; TUR); Hematemesis (f; DAD; PH2); Hematuria (f; DAD); Hemorrhage (f; PED); Hemorrhoid (f; FAJ; MAB); **Hepatosis (f12;** AKT; APA; DAD; DEP; `HOS; MAB; MD2; PED; PHR; PH2; PNC;`TEU; TRA; `X19152370; `X19069843 ; `X18484280; X17569218`X16691314 ); `Herpes (f; EGG); High Blood Pressure (1; KAP; MAM); High Cholesterol (1; AKT; APA; KHA; MAB; TRA; VAD; JMF8:246); High

Triglycerides (1; KHA; MAB; TRA); `HIV (1; `HOS); `Hyperacidity (f; ADP); `Hyperemesis (f; `TEU); `Hyperhomocysteinemia (1; X15622377); `Hyperkinesi`s (1; X18022680); **Hyperlipidemia (12;** MAB; PHR; JMF8:256); `Hypoacidity (1; KHA); `Hypothermia (f; SKJ); Hysteria (f; DAD; `DEP); `IBD (1; TUR; X17569223); IBS (1; PED); **Infection (f12;** MAB; MPI; PH2); **Inflammation (f12;** APA; `DEP; `HOS; KOM; PHR; PH2; `TEU; TRA; WAM; WHO); `Ischemic (1; X17955367 ;X16504000); Itch (f; APA; KAP; PH2; TUR); Jaundice (f1; `ADP; DEP; MAB; `TEU; TRA; TUR; X17569218); Laryngitis (f1; BIB; COX); \Leishman`ia (1; `TEU; X10865470); Leprosy (f; PH2; TUR); Leukemia (f1; AKT; `HOS; TUR; X18396784; X17448598; X17201156; X16521985; X16364242); Leukoderma (f; DAD; `X18484280); \Leukoplakia (1; X11712783); Lichen Planus (f; X17604143); Lymphoma (1; BIB; COX; `HOS; X17182546); Malaria (f; KAB;KAP; PH2; WOI; `X18484280); `Measles (f; TUR); `Melanoma (1; `HOS; TUR); `Metastasis (1; `HOS); Morning Sickness (f1; FAJ; MAB); Mucososis (f; PH2; TUR); `Multiple Sclerosis (1; X17569223); `Mycobacteria (1; TUR); Mycosis (f1; `DEP; FAJ;PH2; X8824742); `Multiple Sclerosis (1; X17569223); `Mycobacteria (1; TUR); Mycosis (f1; `DEP; FAJ;PH2; X8824742); `Myelodysplasty(1; `X18324353) `Myeloma (1; `X18324353 ; X17404048); `Nausea (1; `HOS); \Nematode (1; X8221978); \Nematode (1; X8221978); Nephrosis (f1; AKT; PH2; X17002671); `Nicotinism (1; (X16691314); `Nyctalopia (f; SKJ); Ophthalmia (f1; AKT; DAD; `DEP; IHB; PH2); Orbital Pseudotumor (1; PR14:443); **Osteoarthrosis (f12**; KHA; MAB; `TEU; X12723628); Osteoporosis (1; X17182546); `Otorrhea (f; DEP); Ozoena (f; KAB); Pain (f1; ADP;BIB; `DEP; COX; FAJ; `TEU; TUR; WHO; X16028990); Pancreatitis (1; TUR; X17900536); `Papilloma (1; `TEU;);Parasite (f; BIB; DAD; KAP LIB); `Parkinson's (1; X17900536); `Periodontosis (1; X18929638); \Plasmodicide (1; X10865470); Polyp (f1; COX; JLH; JNU; MES); `Proctosis (f; SKJ); `Pseudomonas (1; TUR); Psoriasis (1; FAJ; FNF; MAB; `TEU; `X18484280; `X17569223; X16387689); Puerperium (f; FAJ; MAB; `TEU); `Pulmonosis (1; X17569221); `Respirosis (1; X17569221); Radiation (1; AKT); Restenosis (1; MAB); Rheumatism (f1: BIB; COX; SKY; `TEU); Rhinosis (f1; COX; JLH); Ringworm (f; APA; BIB; `DEP; KAP; PH2); `Salmonella (1; TUR); `Sarcoma (1; `HOS); **Scabies (f12;** BGB; `DEP; KHA; TUR); `Schistosoma (1; `X19143127; X17948736; X 17907745); `Shock (1; TUR); `Sinusitis (f; ADP; TUR); Smallpox (f; DAD; TUR); `Snakebite (1; JAF51:6802); **Sore (f12;** KHA; PH2); Sore Throat (f; PH2); `Sortase-A-Inhibitor (1; X16277395);`Spasm (f; IHB); Sprain (f1; DEP; IHB; MAB; SUW); Staphylococcus (1; FAJ; MPI; TUR; UPW); `Sting (f; DEP); `Stomatosis (f; X17604143); Stone (f1; HHB; MAB); `Stress (1; `HOS; TUR; X17022948); Stroke (f`1; BOW; PH2; X18611416); Swelling (f1; AKT; COX; NPM; PH2; TUR); Syphilis (f; DAD); `Thalassemia (1; X17897073); `Thrombosis (f1; TUR; VAD; X18611416; X18826584); `Thrush (f1; TUR); `Tonsilosis (f; NPM); Trauma (f; AKT; X16028990); ``Tuberculosis (1; X15203565; X11591115); `Tumor (1; `HOS); Ulcer (f1; BIB; COX; FAJ; `HOS; PED; WHO; X16327153); `Unconsciousness (f; SKJ); **Uveosis (12;** AKT; `TEU; X18421073); VD (f; BIB; DAD); Vertigo (f; BIB; `DEP; DAD; FAJ); \Virus (1; `HOS; X10389986); Vomiting (f; PH2); Wart (f; JLH); Whitlow (f; JLH); \Worm (f1; `DEP; X8221978); Wound (f1; APA; BGB; IHB; PH2; SUW; WAM; `X18929638; `X18655004; X17900536; X16286372); Yeast (f1; PED; TUR).

B. Indications Evaluations (IE's) Summary: Review of Indications of 16 DCO Herbs. (See Appendix III for comparison of herb indications to pharmaceutical indications)

Actaea (Cimicifuga) racemosa (Black Cohosh). Widely sold and respected for menopausal difficulties.

*Allium sativum (Garlic): My most important herbal medicine, useful at preventing all the major killers and sepses.

Ananas comosus (Pineapple); Bromelain, the proteolytic enzyme, has many proven activities.

Arctium lappa (Burdock); Contains antilymphomic lignans.

Astragalus membranaceus (Huang Qi/ Yellow Root): Widely sold in America and China as an anticancer immunomodulator.

Camellia sinensis (Green Tea): Food farmacy item widely and scientifically promoted for many indications.

*Curcuma longa (Turmeric): One of the top 5 medicinal spices, with some anticancer activities, proven to my satisfaction.

Eleutherococcus senticosus (Eleuthero) Sold widely as an alternative to ginseng, adaptogenic tonic.

Glycine max (Soybean): Studied by the late Judah Folkman and widely sold as a food farmacy item, in part for its mix of antiangiogenic isoflavones and quercetin.

*Nasturtium officinale (Watercress): Like most crucifers (members of the Brassicaceae), this nutritious edible species is properly touted as a cancer preventive.

Rheum palmatum (Chinese Rhubarb); Sold as laxative and in Essiac formula, touted for cancer.

Rumex acetosella (Sheep sorrel) Sold in Essiac formula, touted for cancer.

Smilax aristolochiifolia (Sarsaparilla) Widely sold, e.g., for Lyme Disease; contains compounds which can be converted to hormones.

Tanacetum parthenium (Feverfew) I think it's about as good for migraine as pharmaceutical sumatriptan.

Ulmus rubra (Slippery Elm) Sold in Essiac formula, touted for cancer.

Uncaria tomentosa (Cat's Claw) Famed immunomodulator from Latin America; proofs possibly more promotional than scientific.

Half of the new pharmaceuticals will be relabeled (with stronger warnings) or partially or completely recalled within a decade. Meanwhile, more expensive pharmaceuticals will continue to cause many more deaths than are caused by the safe herbs we are led to believe are dangerous. They are not! Check the Bextra, Celebrex, and Vioxx, and, let me predict, soon-to-be-heard statin, stories (three close friends of mine, too old to be worried about cholesterol, have been hospitalized from statins) and head counts of iatrogenic fatalities. The Null Numbers: The total number of annual iatrogenic deaths in America is 783,936. (Null et al, 2003).

Remember, pharmaceuticals have been with us less than 150 years. If our ancestors left Africa via the Holy Land 2000 years ago (for faith-based literalists), or maybe a million years ago (for the less literal), then our genes, tracing back to our African/Holy Land ancestors, have had at least 10 times more temporal experience with Biblical herbs (e.g., cinnamon, coriander, garlic, grape, mint, milk thistle, myrrh, olive, onion, saffron, turmeric, and the like). Pharmaceuticals and synthetic food additives are relatively new to our genes. Our bodies have had thousands, perhaps millions, of years of evolutionary experience with the thousands of phytochemicals in these species. Our bodies may even require many of them. In many cases, by my educated guess, the body has evolved homeostatic mechanisms for maintaining homeostatic balances for these phytochemicals. Our bodies can sequester them from our dietary millieux if we need them, excreting them if we do not. We can prove this for simple elemental chemicals like selenium and zinc. I believe it is the case that homeostatic balancing activities exist for hundreds of many long-familiar dietary components. We just, as Congress, signed an RDA for choline in the last decade. The farther we get from our Paleolithic diet, and

(more importantly) the more synthetic pharmaceuticals and food additives we ingest, the more liable we are to suffer imbalances. It's not only food additives that hurt us; it is the subtractives as well. The subtractive phytochemicals are those important nutrients reduced or lost in food processing:

"Of the 12 micronutrients which were plentiful in the natural grain, including vitamins B1, B2, B3, B5, B6, folic acid, E and the minerals iron, zinc, copper, manganese and selenium, less than 30%, and in some cases less than 10%, have been retained in the wheat products we eat. (Levin, 1996)"

Restoring chemical balance may require getting back to basics, those primitive Paleolithic foods rich in phytonutrients. At the same time, we should reduce over-processed nutrient-poor junk foods, avoiding additives and even pharmaceuticals where possible and plausible. I'm not saying there is no place for pharmaceuticals. But I will say that in many cases there are balanced Biblical foods that are pharmacologically competitive with unbalancing pharmaceuticals, and these food farmaceuticals should be drugs of first resort, and the pharmaceuticals last resort.

And if you believe in me and my Biblical food farmaceutical shotgun more than you believe in your allopath and her/his expensive pharmaceutical silver bullets, there's a better chance that my natural approach will help you. Believing is half the cure. Can you believe in a company whose $2-billion-a-year drug was shown in JAMA (Journal of the American Medical Association) back in 2002 to be no better than placebo for major depression? Can you believe that now, three years later, that company still has the premier lead-off ad page for the JAMA, touting the $2-billion-a-year drug as so trusted, so reliable, so efficacious? I suspect you'd be better off with Biblical walnut oil and

Biblical saffron, nourishing AND medicating your body, attenuating the depression with few or no consequential side effects. If you count all the possible side effects reported in the fine print of that ad for the $2-billion-a-year pharmaceutical, there are more than a hundred.

When that study was printed back in 2002 showing the pharmaceutical no better than placebo, almost nobody heard that the drug failed too. The news was instead blaring out "St. Johnswort no better than placebo." True, St. Johnswort (SJW) fared no better than placebo in this clinical comparison of SJW, Zoloft, and placebo. But that's the half of the story that Joan Q. Public heard a thousand times, while maybe once or twice hearing that the pharmaceutical failed too. Do I think there is a pharmaceutical/ PhDA/press conspiracy? I will say that they are all singing the same song, and the song is wrong, and is hurting Americans. Their monotonous song drives American consumers from the safer food, herb and spice farmaceuticals to the more expensive, more dangerous synthetic pharmaceuticals. All this at the expense of our health and the health of our planet. Even our rivers and lakes, and consequently our water supply, are now cocktails of pharmaceutical residues.

2. Some Biblical Herbs and Spices: Potential Alternatives to Pharmaceuticals

The following is a partial list (for more examples see Appendix IV) of long-known plants that by some definitions might be considered spices or culinary herbs. I also list here a disease or malady in which they have shown some promise, and a competitive pharmaceutical for that disease. I am campaigning for a third arm mandate, empowering a comparison of a third, herbal, arm with the pharmaceutical in any new clinical trials. Until such clinical trials, we don't really know that the pharmaceutical is

best. . The herb is almost always safer and cheaper. Pharmaceuticals and/or iatrogenesis (medically-caused adverse effects) related to conventional treatments kill 100,000 to 740,000 Americans a year, according to some published sources. Hurley in the New York Times (Feb, 2007) suggested that fewer than 30 are killed annually by herbs, nutritional supplements and vitamins.

Herb/Drug Contrast (for a continuation of the list see Appendix V)

Allium cepa - Onion - Osteoporosis - Caltrate [[Weak but possible competitor]]

Allium sativum - Garlic -Hypercholesterolemia - Lipitor [[Garlic may be as good with diet and exercise as lipitor with exercise and diet for some patients]]f

Anethum graveolens - Dill - Gas - Mylanta [[Probably equivalent]]

Armoracia rusticana - Horseradish - Sinusitis -Sudafed (Bronchosis Robitussin) [[Probably equivalent]]

Artemisia herba-alba - White Wormwood - Malaria - Chloroquin [[Probably NOT as good]]

Boswellia sacra - Frankincense - Arthrosis - Celebrex [[Possibly equivalent due to COX2Is equivalent]]

Brassica nigra - Black Mustard - Cancer - Lorenzo's Oil? [[Neither real promising]]

Capparis spinosa -Caper - Cancer -Tamoxifen

Carum carvi - Caraway - Cancer - Tamoxifen

Ceratonia siliqua - Carob - Diarrhea - Kaopectate [[Probably equivalent]]

Cichorium intybus - Chicory - Dyspepsia - Mylanta [[Probably equivalent]]

*Cinnamomum aromaticum - Cassia - Diabetes -Avandia [[I'd bet on Cinnamon/Cassia]]

*Cinnamomum verum - Ceylon cinnamon - Diabetes -Avandia [[I'd bet on Cinnamon/Cassia]]

Citrus medica - Citron - Asthma -Allegra [[Possibly equivalent]]

VI. SUMMARY AND CONCLUSIONS

Reviewing the MAM's and the IE's for the constituents of the DCO products in the manner that I have reviewed thousands of uses for hundreds of herbs for several decades, it is clear that significant evidence in support of the following uses exists:

There is a reasonable basis for the claims that the ingredients of 7 Herb Formula, "..., fights tumor formation, and fights pathogenic bacteria."

There is a reasonable basis for the claims that the ingredients of GDU, "contains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein -- even that of unwanted tumors and cysts. This formula also contains ingredients known to help relieve pain and heal inflammation. GDU is also used for. . .and as an adjunct to cancer therapy. GDU possesses a wide range of actions including anti-inflammatory and antispasmodic activity. . ."

There is a reasonable basis for the claims that the ingredients of BioMixx, "boosts the immune system, ...to allow for natural healing. It is used to assist the body in fighting cancer and in healing the destructive effects of radiation and chemotherapy treatments."

February 4, 2009

[Approved for signature by Dr. Duke on February 4, 2009. Signature page to follow.]

James A. 'Jim' Duke
8210 Murphy Road
Fulton, Maryland 20759
301-498-1175

VI. SUMMARY AND CONCLUSIONS

Reviewing the MAM's and the IE's for the constituents of the DCO products in the manner that I have reviewed thousands of uses for hundreds of herbs for several decades, it is clear that significant evidence in support of the following uses exists:

There is a reasonable basis for the claims that the ingredients of 7 Herb Formula, "..., fights tumor formation, and fights pathogenic bacteria."

There is a reasonable basis for the claims that the ingredients of GDU, "contains natural proteolytic enzymes (from pineapple source bromelain) to help digest protein --even that of unwanted tumors and cysts. This formula also helps to relieve pain and heal inflammation. GDU is also used for. . .and as an adjunct to cancer therapy. GDU possesses a wide range of actions including anti-inflammatory and antispasmodic activity. . ."

There is a reasonable basis for the claims that the ingredients of BioMixx, "boosts the immune system, ...to allow for natural healing. It is used to assist the body in fighting cancer and in healing the destructive effects of radiation and chemotherapy treatments."

February 4, 2009

James A. Duke

James A. 'Jim' Duke
8210 Murphy Road
Fulton, Maryland 20759
301-498-1175

James A. Duke

James A. Duke

CV:

Born in Birmingham, Alabama in 1929, James A. "Jim" Duke is a Phi Beta Kappa PhD (botany, 1961) graduate of the University of North Carolina. Jim, following military service, undertook postdoctoral activities at Washington University and Missouri Botanical Garden in St. Louis, Missouri. There he began studies of neotropical ethnobotany, his overriding interest to this day. From 1963 to 1965, Duke was ecologist with the USDA (Beltsville, Maryland), joining Battelle Columbus Laboratories (1965-71) for ecological and ethnobotanical studies in Panama and Colombia. During this formative period, Duke lived with various ethnic groups, closely observing their deep dependence on forest products. The first of some twenty books, his Isthmian Ethnobotanical Dictionary catalogs hundreds of Isthmian plants and their uses. Rejoining USDA in 1971, Duke had assignments relating to crop diversification, medicinal plants, and energy plant studies in developing countries. A popular lecturer on the subjects of ethnobotany, herbs, medicinal plants, and new crops and their ecology, he has taped dozens of TV and radio shows. The National Agriculture Library has a video history of Dr. Duke's career. Duke grows hundreds of interesting plants on his six-acre farmette (Green Farmacy Garden) with his wife and illustrator, Peggy. On Sept. 30, 1995, he retired after ~ 30 years with the USDA.Before retiring, Dr. Duke brought his renowned ethnobotanical and phytochemicial database online at USDA. It is now, in Duke's retirement, one of the most frequently consulted areas of the USDA website. Since retiring Dr. Duke has served for five years as Senior Science Adviser to Nature's Herbs. and with AllHerb.Com Since 2001, he has been a distinguished herbal lecturer with the Tai Sophia Healing Institute, Laurel MD.

USDA DATABASE http://www.ars-grin.gov/duke/; Pleiotropy Database Multiple Activities Menu

Duke has already doubled the raw data content in the add-on module that he maintains for private licensure. The database is especially useful for determining biological activities and healing potentials of food ands herbs. There is a growing interest in his data from people in companies and organizations including: Proctor & Gamble Corporation, New Chapter, Herbal Science, GAIA Herbs, MD Anderson Cancer Institute and many others.

Fluent in Spanish, Duke has studied and/or lectured widely, concentrating on tropical ecology, medical botany, and crop diversification. Widely travelled, Duke "cut his tropical eye teeth" in

Panama where he was resident from 1966-68. While working on an encyclopedia of economic plants, he has collaborated with the National Cancer Institute on both their AIDS and cancer-screening programs and their Designer Food Program (to prevent cancer). His data bases on the ecology, nutritional content, folk medicinal uses and chemical constituents of economic plants are being widely utilized. Duke's major goal lately is to reverse the disdain for alternative medicines in the US, where, as in the Third World, a growing percentage of people can no longer afford nor trust pharmaceuticals. Duke has a contagious interest in natural foods and nutritional approaches to preventive medicine. Between 1990-1992, Duke was advising the Designer Food Program of the NIH, then under the aegis of Dr. Herb Pierson. Lately Duke has been very active in ecotourism in Latin America and is teaching such themes as renewable rainforest products in the rainforests of Amazonian Peru. He has become an expert in the field of non-timber forest products. In 2008, Duke has already led trips to the rain forests of Costa Rica and Peru, along with numerous honoraria speeches (see below).

With an aggregate of more then a decade in Latin America, Duke has traversed parts of Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guadelupe, Guatemala, Honduras, Jamaica, Mexico, Panama, Peru, Puerto Rico, and Venezuela. In Asia, he has had lengthy visits in China, India, Indonesia, Pakistan, and quick looks at Burma, Japan, Laos and Vietnam. In the Middle East, he has worked in Iran, Israel, Kuwait, and Syria, with quick looks at the Mediterranean countries of Egypt, Greece, Italy, Portugal and Spain. His only tours in tropical Africa include Madagascar, Sao Tome, The Ivory Coast and Zambia. Recently he has been teaching field ethnobotany regularly in Amazonian Peru, Belize and Costa Rica (mostly in the winter) and in the Maine northwoods (in summer only).

Duke belongs to the American Botanical Council (Trustee), American Herb Association (Life), American Society of Pharmacognosy, Association for Tropical Biology (Life), Council of Agricultural Science and Technology (Cornerstone Life Member), Herb Research Foundation (Advisor), International Association of Plant Taxonomists (Life), International Society for Tropical Root Crops (Life), International Weed Science Society (Life), Organization for Tropical Studies (Life), Oriental Healing Arts Society (Honorary), Phi Beta Kappa, Sigma Xi, Smithsonian Institution (Collaborator), Society for Conservation Biology (Life), Society for Economic Botany (Life), Southern Appalachian Botanical Club (Life), and the Washington Academy of Sciences (Life).

Duke serves on the board of trustees of the American Botanical Council (ABC), and the advisory board of the Amazon Center for Environmental Education and Research ACEER, He also serves as an occasional advisor or consultant to Alternative Medicine Digest, American Health, the Center for Alternative Medicine in Women's Health (NY), Center for Mind-Body Medicine, Center for Plant Conservation, Herb Research Foundation, International Expeditions, Rodale Press, Prevention Magazine, Rosenthal Center for Alternative/Complementary Medicine, TRAMIL, and the World Health Organization (Traditional Medicine Program

Routinely queried by editors and writers for several different popular and scientific health-oriented journals, and by producers of radio and television networks, both conservative and liberal, Duke recently has given accredited continuing education lectures on herbal medicine, pros and cons, to chiropractors, nurses, nurse practitioners, pharmacists, and physicians. Early on. He was part of the Scientific Advisory Team of Shaman Pharmaceuticals (San Francisco), Medical Advisory Board of Herbalife (Los Angeles), and serves as Medicinal Plant Adviser to Reader's Digest and Time-Life.

PUBLICATIONS (1998-2008)

APPENDICES TO REPORT OF EXPERT WITNESS JAMES DUKE
James A. Duke, PhD, Botany
Economic Botanist, US Department of Agriculture (retired)
In the Matter of Daniel Chapter One
FTC Docket #9329

APPENDIX I: ADDITIONAL MATERIALS RELIED ON

1. Townsend Letter August/September 2007
2. Akhondzadeh S, Fallah Pour H, Afkham K, Jamshidi AH, Khalighi Cigaroudi F.
3. Comparison of Crocus sativus L. and imipramine in the treatment of mild to moderate depression: a pilot double-blind randomized trial. *BMC Complement. Altern. Med.* 2004;Sep;24:12.
4. Duke, JA. 2007. Phytochemical Database. Available at: http://www.ars-grin.gov/duke. Accessed May 15, 2007.
5. General Accounting Office. FDA Drug Review Postapproval Risks, 19761985. April 1990. GAO/PEMD9015.
6. Gramenzi A, Andreone P, Cursaro C, Verucchi G, Boccia S, Giacomoni PL, Galli S, Furlini G, Biselli M, Lorenzini S, Attard L, Bonvicini F, Bernardi M. A randomized trial of induction doses of interferon alone or in combination with ribavirin or ribavirin plus amantadine for treatment of nonresponder patients with chronic hepatitis *C. J. Gastroenterol.* 2007;42(5):3627.
7. Harding OG. The healing power of intercessory prayer. *West Indian Med J.* 2001;50(4):26972.
8. Hypericum Depression Trial Study Group. Effect of Hypericum perforatum (St John's wort) in major depressive disorder: a randomized controlled trial. *JAMA.* 2002;287 (14):180714.
9. Polyak SJ, Morishima C, Shuhart MC, Wang CC, Liu Y, Lee DY. Inhibition of Tcell inflammatory cytokines, hepatocyte NFkappaB signaling, and HCV infection by standardized silymarin. *Gastroenterology.* 2007;132(5):192536.
10. Tolstikova TG, Sorokina IV, Tolstikov GA, Tolstikov AG, Flekhter OB. Biological activity and pharmacological prospects of lupane terpenoids: I. Natural lupane derivatives [Article in Russian]. *Bioorg Khim.* 2006;32(1):4255.
11. Zlotta AR, Teillac P, Raynaud JP, Schulman CC. Evaluation of male sexual function in patients with Lower Urinary Tract Symptoms (LUTS) associated with Benign Prostatic Hyperplasia (BPH) treated with a phytotherapeutic agent (Permixon), Tamsulosin or Finasteride. *Eur. Urol.* 2005;48(2):26976.
12. WebMD. Melanoma Guide. Medications. WebMD Medical Reference from Healthwise. Available at: http://www.webmd.com/melanoma-skin-cancer/melanoma-guide/Skin-Cancer-Melanoma-Medications. Accessed May 20, 2007

APPENDIX II: MAM'S FOR DCO HERBS

Here are Multiple Activities Menu's (MAM's) for the 16 DCO herbs and cancer. The MAM is a listing I have created and maintained for over 20 years on the USDA web site. Information is put into the web site about the relationship between an herb and a condition—in this case cancer.

Evidence Level f = folklore; Evidence Level 1 = epidemiological, phytochemical, in vitro or animal evidence; Evidence Level 2 = extracts clinically proven or approved by Comm. E (or Tramil Commission); Evidence Level 3 = herb clinically proven or approved by Comm. E (or Tramil Commission); Recent PubMed Serial Citation Numbers represented by an X followed by the 8 digit number

These can be done online at my USDA website.

Actaea (Cimicifuga) racemosa (Black Cohosh)
(Widely sold and respected for menopausal difficulties)

INDICATIONS (BLACK COHOSH): Adenopathy (f; JLH); Amenorrhea (f1; CRC; MAB); Arthrosis (f; CAN); Arthrosis (f; CRC; HHB); Asthma (f; MAB); Autoimmune Diseases (1; MAB); Backache (f; DEM); Bacteria (f; APA); Bite (f; PH2); Bronchitis (f; APA; CRC); Bronchoses (f; FAD; PED; PH2); Cancer (f1; JLH; MAB; X15577215); Cancer, breast (f1; JLH; MAB; X14999145); Cancer, groin (f; JLH); Cancer; Liver (f; CRC); Cancer, prostate (1; X16773536); Cancer, skin (f1; JLH; X12614901); Cancer, Tongue (f; JLH); Chorea (f; CAN; CRC; FAD); Chorea (f; HHB; MAB); Climacteric (menopausal) neurovegetative ailments (12; HHB; KOM); Cold (f; DEM); Constipation (f; DEM); Cough (f; APA; CAN; DEM); Cramp (f1; BUR; MAB; PNC; SKY); Diabetes (1; APA; PNC); Diarrhea (f1; CRC; DEM; PED); Dropsy (f; CRC); Dysmenorrhea (12; APA; HHB; KOM; PH2SKY); Dyspepsia (f; APA); Epilepsy (f; BUR); ERT (12; KOM; MAB; PED); Fatigue (f; DEM); Fever (f1; CRC; FAD; PH2; PNC); Gynecopathy (f; CRC); High Blood Pressure (1; APA; MAB; PNC); `High Cholesterol (1; SKY); Hives (f; DEM); Hot Flashes (12; APA; X15565808); HRT (12; BGB); Hysteria (f; CRC); `Infection (1; X14980692); Inflammation (f1; PNC; X15209365); Insomnia (f1; CAN; DEM; PNC); Itch (f; CRC);Lumbago (f1; CRC; FAD; PH2); Malaise (f; BGB; CRC); Malaria (f; BGB; CRC); Mastosis (1; MAB); Measles (f; PH2); Menopause (12; BGB; MAB; PH2 SHT); Menorrhagia (f1; CRC; MAB); Menstrual Problems (12; SKY); Metastasis (f; JLH); Myalgia (f; CAN); Nephrosis (f; BGB; CRC; DEM); Neuralgia (f; MAB); Nervousness (f1; APA; CRC); Otosis (f; HHB); Pain (f; BGB; DEM; HHB; X15209365); Parturition (f1; CRC; FAD); Pertussis (f; CRC); PMS (12; APA; KOM; PH2); Poor Milk Supply (f; DEM); Pulmonosis (f; BUR); Rheumatism (f1; APA; BGB; BUR; CAN; HHB; PH2); Sciatica (f1; CAN); Scirrhus (f; JLH); Snakebite (f; APA; CRC; FAD; PH2); Sore Throat (f; APA; BGB; CRC; PH2); `Spasm (f; HNI); Tinnitus (1; CAN; CRC; MAB); Tuberculosis (f; DEM); Ulcer (1; PNC); Uterine Disorders (f; CRC); Water Retention (f; APA; PED; PNC); Whooping Cough (f; MAB; PNC); Yellow Fever (f; CRC).

Allium sativum (Garlic)
(Most important medicinal Herb)

ACTIVITIES (GARLIC): `ABeta-Blocker (1; X15277073); Acarifuge (1; KAL); \ACE-Inhibitor (1; `HOS; NP6:1; X17875387); `Alcohol-Dehydrogendase-Inhibitor (1; FNF); `Allergenic (1; FNF); Alterative (f; KAP; PED); \Alexeteric (f; KAB); `Allergenic (1; `TEU); Amebicide (f1; APA; `HOS; X18370873; X11101670); Analgesic (f1; BGB; `HOS; ULW); `Anesthetic (1; `HOS); \Angiotensin Receptor Blocker (1; NP6:1); Anodyne (f; DAD); Androgenic (1; KAL); Anthelminthic (f1; KAL; WHO); \Antiaflatoxin (1; X1394115); **Antiaggregant (f123;** APA; FNF; `HOS; KOM; PH2; SHT; `TEU; VOD; `X19174616 ); `Antiaging (f1; `HOS; `TEU); Antiallergic (f1; AKT; `HOS; JN131:1075s); Antiandrogenic (1; DAD; `HOS; X18097508); JN131:1075s; \Antianemic (f1; JN131:1016s); `Antianginal (1; FNF);\Antiangiogenic (f; BO2); `Antiarrhythmic (f`1; EGG; `HOS);**Antiarteriosclerotic (f12**`3; KAL; `TEU); Antiarthritic (f1; KAL); **Antiatherogenic (2;** BGB; `HOS; WHO);`Antiatherosclerotic (1; FNF);; **Antibiotic (f12;** AKT; PNC; PED); Anticancer (f1; KAL; SKY); `Anticarcinogenic (1; `HOS); `Anticardiospasmic (1; `HOS); Anticholinesterase (1; KAL); `Anticlimacteric (1; `HOS); `Anticold (1; FNF); \Anticollagenase (f; BO2); `Anticoronary (1; `HOS); `Antidementic (1; `HOS); `Antidepressant (1; `HOS); Antidiabetic (f1; `HOS; KAL; PNC; X18393435); Antidote (f; VOD; WO2); `Antidote (Arsenic) (f1; KAL; X17983699); `Antidote (Cadmium) (1; X17916975); `Antidote (Gold) (f; KAL); `Antidote (Lead) (f1; KAL; X 18719860); `Antidote (Mercury) (f1; KAL); `Antidyskinetic (1; `HOS); `Antiedemic (1; `HOS); \Antieicosanoid (1; BO2); `Antiencephalopathic (1; `HOS); Antifertility (1; KAL; WO2); **Antifungal (f12;** KAL;SKY); Antigiardal (1; X11101670); `Antihemorrhoidal (1; `HOS); Antihepatotoxic (1; CAN; `HOS; KAL); `Antiherpetic (1; `HOS); `AntiHIV (1; `HOS); Antihypercholesterolemic (1; `HOS; WHO); \Antihyperglycemic (1; KAP); Antihyperlipidemic (1; WHO); Antihypertensive (f1; SKY; `TEU; VOD; WHO); `Antihypertonic (1; `TEU); `Antiinfertility (1; `HOS); Antiinflammatory (f1; APA; BGB; `HOS). `Antiinsomniac (1; HOS); Antiintegrase (1; KAL); \Antiisoprene (1; BO2); \Antileukemic (1;`HOS; JN131:1027s); `Antileukotriene (1; `HOS);`Antilipidemic (1; `TEU); \Antilymphomic (1; BO2; `HOS); `Antimalarial (1; `HOS); `Antimanic (1; `HOS); `AntiMDR (1; `HOS; `X18007101; X17726732; X17510266); `Antimenopausal (1; `HOS); `Antimetastatic (1; `HOS); `Antimigraine (1; `HOS); `AntiMRSA (1; X17510266); `Antimutagenic (1; `HOS); \Antimycobacterial (1; PR14:303); `Antimycoplasmic (1; **X**17969714**); Antimycotic (f12;** BGB; `HOS; KAL); `Antineuralgic (1; FNF); \anti-NF-kB (1; BO2; JN131:1020s); \Antinitrosaminic (1; VOD; JN131:1027s); Antioxidant (1; AKT; `HOS; KAL; PH2; SHT; WO3); `Antiparkinsonian (1; `HOS); `Antiphenylketonuric (1; `HOS); Antiplatelet (1; HOS; WHO; `X19174616 ); `Antiproliferant (1; `HOS); ; Antiprostaglandin (1; `HOS; WHO); `Antipsychotic (1; `HOS); Antipyretic (f1; WHO); `Antiradicular (1; VOD); Antirheumatic (f1; `HOS; KAL); `Antisarcomic (1; FNF; `HOS); **Antiseptic (f123;** AKT; APA; GHA; `HOS; PH2; PNC; SKY; VOD); `Antishigellic (1; FNF); \Antisickling (1; JN131:1016s); Antispasmodic (f1; DLZ; PED; WHO); `Antistaphylococcic (1; `HOS); `Antostomatitic (1; `HOS); Antistress (1; KAL); `Antitachycardic (1; `HOS); Antithyroid (1; KAL); Antithrombotic (f1; FAY; `HOS;

PH2; PNC; `TEU); \Anti-TNF (1; BO2);`Antitriglyceride (1; FNF); \Antitubercular (1; PR14:303); Antitumor (f1; BGB; `HOS; PNC; `TEU; X18655544); Antiulcer (f1; X11238826); \anti-VEGF (1; BO2); Antiviral (1; AKT; APA; `HOS; KAL; SKY); `Anxiolytic (1; `HOS); Aphrodisiac (f1; DAD; WHO); \Apoptotic (1;BO2; `HOS; X18600203; X16433033); `Arteriodilator (1; `HOS); **Bactericide (`f12;** AKT; FAD; `HOS; KOM; SKY; `TEU; WHO); \Beta-Blocker (1; NP6:1); `Bidifogenic (1; X18393435); \Calcium-channel blocker (1; `HOS; NP6:1); `Candidicide (1; FNF; `HOS); `Carcinogenic (1; `HOS); Cardioprotective (f1; FNF;`HOS; `TEU; VOD); Cardiotonic (f1; AKT; `HOS; JFM); Carminative (f1; `HOS; PED; RIN; WHO); `Caspase-3-Inducer (1; X16433033); `Chemopreventive (1; `HOS; X18655544); Choleretic (f1; `HOS; MAM); `Cholinesterase-Inhibitor (1; FNF);`Circulostimulant (1; TEU); `COX-2-Inhibitor (1; `HOS); `Cyclooxygenase-Inhibitor (1; FNF; `HOS);`Cysticide (1; X18370873); `Cytotoxic (1; `HOS); Decongestant (f1; FAY); Detoxicant (f; AKT; FAY); Diaphoretic (f; `HOS; JFM; PED; PNC); Digestive (f1; AKT; PED; `TEU); Diuretic (f1; FAD; `HOS; WHO); Edemagenic (1; WO3); Emmenagogue (f1; JFM; `TEU; WHO); `Ergogenic (f; `HOS); Estrogenic (1; KAL); Expectorant (f; `HOS; PED: PNC; WOI); **Fibrinolytic (123;** APA; GHA; `HOS; KAL; KOM; PH2; `TEU); **Fungicide (f12;** FAD; `HOS; KOM; MAM); `Gastroprotective (f1; FNF; VOD); \Gastrotonic (f; KAB); Glutathiogenic (1; BO2; PH2; JN131:1010s ); `Gram(+)-icide (1; `HOS; `TEU); `Gram(-)-icide (1; `HOS; `TEU); `GST-Inducer X17199238 ; `HDL-Genic (12; `TEU); `Hemagglutinant (1;X 18207414); Hepatoprotective (1; BGB; `HOS; JFM; `TEU; WO3; ` X17199238); `Hepatotoxic (1; FNF);; ` HMG-CoA-Reductase-Inhibitor (1, X15821374); Hyperglycemic (1; PNC); `Hypnotic (1; `HOS); Hypoammonemic (1; `HOS); **Hypocholesterolemic (12;** AKT; DAD; FAD; `HOS; PH2; SHT; `TEU); Hypoglycemic (f1; DAD; `HOS; KAL; PED; PNC); Hypolipidemic (f1; BGB; DAD; `HOS; PED; PNC); **Hypoperistaltic (2;** WHO); **Hypotensive (12;** AKT; BGB; FAD; `HOS; SHT); **Hypotriglyceridemic (1`23**; AKT; TEU; VOD; `X18393435); Hypouricemic (f; JFM); `IL-2-Genic (1; `HOS); `Immunomodulator (1;`HOS); Immunostimulant (1; AKT; BGB; CAN; FAY; `HOS; PED; TEU; X18655544); `Insecticide (1; FNF); Insectifuge (f1; KAL); `Insulinase-Inhibitor (1; `HOS); `Insulinotropic (1; X18361751; X18370873); Insulin-sparing (1; PNC); \Interferonigenic (1;`X18655544; X17523869; X11238818); Interleukenogenic (1; WO3); `Lachrymatory (1; `HOS); `Lactogogue (f; NMH); Larvicide (1; WO2); Lipase-Inhibitor (1; `HOS); Lipogenic (f; KAB); **Lipolytic (12;** `HOS; KOM; PH2; SHT; `TEU; WHO; `X17177506); ); `Lipoxygenase-Inhibitor (1; FNF; `HOS); Lymphocytogenic (1; AKT; HOS); \Memorigenic (f1; GHA; `HOS; JN131:1016s; X19053859); `Mucokinetic (1; FNF); `Mucolytic (1; MAB); Nematicide (1; FNF); `NF-kappa-B-Inhibitor (1; `HOS); `NO-Inhibitor (1; `HOS); Myocontractant (1; CAN); Myorelaxant (1; CAN); `Nephroprotective (1; X 18521705); Nervine (f; PED); `NF-kappaB-Inhibitor (1; X15659827); NKC-Enhancer (1; AKT; PH2); NO-Genic (1; `HOS; KAL); \Orexigenic (f`1; KAB; `TEU); Ovicide (1; WO3); Oxytocic (1; WO2); `Papain-Inhibitor (1; FNF); Parasiticide (f1; AKT; HOS); `Pesticide (1; `HOS); Phagocytotic (1; AKT; JN131:989s); `Pituitary-Stimulant (1; `HOS); `Prebiotic (1; X18393435); `Prolactinogenic (1; `HOS); \Prooxidant (1;BO2); `Proteolytic (1;X 18207414); Protisticide (1; `HOS; KAL); `Protoscolecide (1; `19160141); `Quinone-Reductase-Inhibitor (1; X17177506); \Radioprotective (1; JN131:1010s); Rubefacient (f; JFM); Sedative (1; `HOS; WHO);

`Serotoninergic (1; `HOS); Spermicide (1; KAL; X18097508); `Spermigenic (1; `HOS); Squalene-Monooxygenase-Inhibitor (1; FNF); `Stimulant (1; `HOS); `Stomachic (1; `HOS); `Succinate-Dehydrogenase-Inhibitor (1; FNF); `Thyrostimulant (1; `TEU); `Tineacide (1; `HOS); `TNF-alpha-Genic (1; `HOS); \Tonic (f; `HOS; KAB);`Trichomonicide (1; FNF); `Trypanosomacide (1; `HOS); `Tumor-Promoter (1; `HOS); `Urease-Inhibitor (1; FNF); Vasodilator (1;`HOS; SHT; WHO); Vermifuge (f1; AKT; APA; `HOS; VOD); . `Vibriocide (1; FNF); ` Viricide (1; FNF; `HOS); `Vulnerary (f1; `HOS; PED); Xanthine-Oxidase-Inhibitor(1; FNF).

Ananas comosus (Pineapple);
Bromelain , the proteolytic enzyme, has many proven activities.

INDICATIONS (PINEAPPLE): Abscess (f; CRC); `Adenoma (1; `X17893836); Allergy (1; X16337164); \Amenorrhea (f; PH2); Anemia (f; EGG); Angina (f`1; VOD; X11577981); Antidote (f; JFM); Arteriosclerosis (f; EGG); \Arthrosis (f1; DAV; EGG; X15841258); \Asthma (f1; PH2; X16337164); \Bacteria (1; JAC7:405); Biliousness (f; DLZ; EGG); Bite (f; IED); Bleeding (f1; CRC; DAV; EFS; KAB); Blenorrhagia (f; DAV; EGG); Bronchosis (f`1; JFM; MPB; X11577981); Bruises (f1; CRC); **\Burn (f12;** BGB; PH2; UPW); Calculus (f; EGG); Cancer (f1; APA; PH2); `Cancer, breast (1; `X17893836); `Cancer, lung (1; `X17893836); Catarrh (f; EGG); \Cellulite (1; FT71:S73); Childbirth (f; CRC); Colic (f; EGG); Constipation (f1; APA; CRC; PH2); Corn (f; CRC); Cystosis (f; APA; CRC); Diabetes (1; X16753349); Diarrhea (1; APA; JAC7:405); Diptheria (f; EGG);Dropsy (f; UPW); Dysmenorrhea (f; AHL; APA; PH2); Dyspepsia (f; APA; DAV; PH2); Dyspnea (f; UPW); Dysuria (f; DLZ; JFM); Edema (f1; CRC; KOM); `Encephalomyelitis (f1; X15794389); Encephalosis (f1; X15794389); Enterosis (f; EGG; RAR); `Enterotoxicosis (1; X10189844); \Escherichia (1; JAC7:405; `X10189844); Exocrine Hepatic Insufficiency (f; BGB); Fever (f; CRC; PH2); Flu (f; EGG); Fungus (1; X15665484); Gas (f; APA; DAV); Gastrosis (f; EGG; KAP); Hematoma (f; CRC; WO3); Hemorrhoid (f1; JFM; \FT71:S73); Hepatosis (f; DLZ; JFM); Hiccup (f; CRC); High Blood Pressure (f; EGG); `High Cholesterol (1; X17380035); `High Triglycerides (1; X17380035); HMGCoA-Reductase-Inhibitor (1; `X17380035); Hypochondria (f; AHL; CRC); Ileus (1; X16137711); Infection (f1; IED; X15665484); Inflammation (f1; APA; EGG; MPB: PH2; X15841258); Jaundice (f; IED; KAP); Kidneystones (f; APA; DAV); Labor (f; APA); `Leukemia (1; `X17893836); `Mastosis (1; X17636577);`Melanoma (1; `X17893836); Mycosis (1; X15665484); MS (f1; X15794389); Nasal Parasinusitis (1; KOM); Nausea (f; DLZ); Nephrosis (f; EGG); Neurasthenia (f; APA); Neurosis (1; X15794389); \Obesity (f`1; `BU2; PH2; `X17380035); ; Pain (f1; APA; EGG; `X17102739 X15841258); \Pancreatosis (f; PH2); Parasites (f1; AHL; CRC; EGG); Phlebitis (f; APA); `Pityriasis (1; X17671882) Pulmonosis (f; JFM); `Pyelonephrosis (1; X11577981); Respirosis (f; APA; CRC); Rheumatism (f1; DAV); `Rhinosis (1; X17011407); `Sarcoma (1; `X17893836); Scarlet Fever (f; CRC); Sciatica (f; SUP); Seasickness (f; JFM); Sinusitis (f1; APA; CRC; `X17011407; X15796206); Smallpox (f; UPW); Sore (f1; AHL; CRC; WO3); Sore Throat (f; EGG; JFM); Spiderbite (f; UPW); Sprain (f1; CRC); Stings (f; IED); Strangury (f; EGG); Swelling (f1; APA; KOM; PH2); Tendinitis (f; SUP); Thrombophlebitis (f`1; APA; X11577981); Tumor (f1; CRC; X15796214); Ulcer (f1; APA; CRC); Urethrosis (f;

UPW); UTIs (1; APA); Varicosities (f; APA); VD (f; APA; CRC); Vertigo (f; UPW); Wart (f; CRC); Wounds (f1; APA); Worm (f; APA; DAV; PH2); **Wound (f12;** PH2; X16367938).

Arctium lappa (Burdock)
Contains antilymphomic lignans' In many Essiac Formulae (no 2's, pre-update)

INDICATIONS (BURDOCK): Abscess (f; CRC; HNI); Acne (f; CRC; SKY; VAD); Adenopathy (f1; AAH; CRC; FNF; JLH); Alopecia (f; APA); `Anemia (1; NMH); Anorexia (f1; CAN; VAD); Arthrosis (f; APA; CRC; HNI; PNC); Backache (f; APA); Bacteria (1; APA; CAN); Bladderstones (f1; APA; CRC); Boil (f1; AAH; CAN; NPM; WAM); Bruise (f; CRC; FAD; LYS); Bunion (f; CRC); Burn (f; AAH; FAD); Cancer (f1; APA; FNF); Cancer, breast (fFNF; JLH); Cancer, colon (fFNF; JLH); Cancer, knee (fFNF; JLH); Cancer, lip (FNF; JLH); Cancer, liver (fFNF; JLH); Cancer, sinus (fFNF; JLH); Cancer, stomach (fFNF; JLH); Cancer, tongue (fFNF; JLH); Cancer, uterus (fFfNF; JLH); Canker Sores (f; APA; CRC); Chancre (f; DEM); Childbirth (f; CRC; HNI); Cold (f; AAH; APA); Constipation (f; APA; FAD); Convulsion (f; AAH); Corn (f; JLH); `Cough (f; HNI); `Cyst (f; HNI); Cystosis (f1; CAN; VAD); Dermatosis (f1; APA; CAN; GMH; VAD; WAM); Diabetes (f1; CAN; CRC); Dropsy (f; CRC; GMH); `Dyskinesia (1; VAD); Dyspepsia (f1; APA; GMH; VAD); `Dysuria (f1; AAH; VAD); Eczema (f; APA; CAN; GMH; WAM); `Edema (f1; VAD); Enterosis (f; APA); Epilepsy (f; AAH); Eruption (f; CRC); Flu (f; APA; FAD); `Fever (f; EB49:406); `Flu (f; DEM); Fungus (1; APA; PED); Furuncle (f1; CAN); Gargantosis (f; APA); Gas (f; CRC); Gastrosis (f; APA); Gonorrhea (f; CRC); Gout (f1; APA; CAN; FAD; GMH; VAD); Gravel (f; DEM); `Hemorrhoid (f; DEM; HNI); Hepatosis (f; FAD); Hives (f; FAD); `High Blood Presssure (1; VAD); `Hyperazotemia (1; VAD); Hyperglycemia (1; CAN); `Hyperuricemia (1; VAD); Hysteria (f; AAH; CRC; GMH); Ichthyosis (f; PHR; VAD); Impotence (f; CRC); Induration (f; JLH); Infection (f1; CRC; PNC); Inflammation (f; JLH; `EB49:406); Itch (f; CRC); Jaundice (f; AAH); Kidneystone (1; APA; X7860196); Labor (f; CRC); Leukemia (1; FNF); Leukorrhea (f; CRC); Lumbago (1; CRC); Lymphoma (1; FNF; JAD); Measles (f; CRC; FAD); Mycosis (1; APA; PED); Nephrosis (f; CRC; FAD; GMH); `Nervousness (f; AAH); `Oliguria (f1; VAD); Pain (f; APA; HNI; LYS; `EB49:406); Parturition (f; APA); `Pertussis (f; HNI); Phosphaturia (f; CRC); `Pleurisy (f; HNI); Psoriasis (f1; APA; CAN; WAM); `Respirosis (f; AAH); Rheumatism (f1; APA; CAN; CRC; GMH; LYS `EB49:406); Ringworm (f; CRC); Scarlet Fever (f; FAD); Sciatica (1; APA; CRC); Scirrhus (f; JLH); Scrofula (f; AAH; CRC; FAD); Scurvy (f1; FNF; GMH)`Seborrhea (f1; VAD); Shigella (1; FNF); Smallpox (f; CRC; FAD); Snakebite (f; CRC); Sore (f; APA; CRC; FAD); Staphylococcus (1; FNF); Sterility (f; CRC); `Stomachache (f; HNI); `Stone (f1; VAD); `Sunstroke (f; EB49:406); Swelling (f; CRC; GMH; VAD); Syphilis (f; APA; CRC); `Tremor (f; DEM); Tumor (f1; CAN; JLH); Ulcer (f; APA; JLH); Urethrosis (Unapproved KOM); UTIs (f; APA); VD (f; CRC); Vertigo (f; CRC; FAD); \Virus (f; APA); Wart (f; APA; JLH); Wounds (f; APA).

Astragalus membranaceus (Huang Qi/ Yellow Root)
(Widely sold in America and China as Immunomodulator)

INDICATIONS (ASTRAGALUS): Amenorrhea (f; PH2); Anasarca (f; DAA); **Angina (12;** ADA; AKT; KEB; LYM; PH2); Anorexia (f; ADA; FAY; LYM); `Arrhythmia (1; LYM); Arthrosis (f; DAA); `Asthma (f; ADA); Autoimmune Disease (1; MAB); `Borreliosis (1; LYM); Bronchosis (f1; ADA; DAA); `Cachexia (f1; LYM); Cancer (f1; ADA; FAY; LYM; SKY); Cancer, breast (1; ADA); Cancer, lung (f1; ADA; LYM; PH2); Cardiopathy (1; AKT; KEB; LYM; PH2); `Carditis (1; LYM); Cervisosis (1; MAB); CFS (f1; KEB; LYM); Chemotherapy (1; FAY; MAB); `Chill (f; ADA); **Cold (f12;** KEB; LAF; LYM; WAM); `Cough (f; ADA);`Coxsackie (1;ADA; LYM); `Deafness (f; ADA); Debility (1; ADA; DAA; FAY); Diabetes (f1; ADA; DAA; LAF; PED); Diarrhea (f; MAB); `Dysmenorrhea (f; ADA); **Dyspnea (f12;** AKT; LYM; PH2); Dysuria (f; DAA); Edema (f1; DAA; PED); `Ehrlichia (1; LYM); Encephalosis (1; MAB); Fatigue (f1; ADA; FAY; LYM; MAB) ; Fever (f; ADA; MAB); Fibrosis (f; PH2); Flu (f1; ADA; FAY; KEB; LYM; WAM); `Gastrosis (1; LYM); `Headache (1; LYM); `Hemorrhoid (f; ADA); Hepatosis (1; AKT); `Hepatitis B (1; LYM); Herpes (1; MAB; SBU); High Blood Pressure (1; KEB; LYM); HIV (1; KEB; LAF); ; Immune Dysfunction (1; LAF; SKY); Infection (1; LYM; PED; MAB); Infertility (1; KEB); Inflammation (1; MAB; WAM); Ischemia(= > nifedine) (1; AKT; LYM ); `Leprosy (f; ADA); Leukopenia (1; MAB); Metastasis (1; BO2); `Mononucleosis (f; ADA); Myocarditis (1; ADA; AKT; LYM; MAB; PH2); `Myosis (f; ADA); **Nephrosis (f12;** ADA; AKT; FAY; KEB; PH2); Nightsweat (f; DAA; LYM); `Numbness (f1; LYM); `Osteoporosis (f; ADA); Pain (1; AKT); Palpitation (f1; LYM; MAB); Paralysis (f; LYM; MAB); `Pneumonia (f; ADA); Proctocele (f; DAA); Prolapse (f; ADA; DAA; KEB); Proteinuria (1; AKT); Puerperium (f; LYM; MAB); Pulmonosis (f; DAA; PH2); Respirosis (f; DAA); `Sore (1; ADA; LYM); Sore Throat (1; SKY); `Spirochete (1; LYM); Splenosis (f; DAA); `Stress (1; LYM); `Tendonosis (f; ADA);`Tetralogy of Fallot (1; LYM); `Thirst (f; ADA); `Tuberculosis (f; ADA); `Tumor (f1; ADA; FAY); Ulcer (f1; KEB; LYM; PED); Urethrosis (f; PED); Uterrhagia (f; MAB); Uterosis (f; DAA); Viral Hepatosis (1; KEB); Virus (1; ADA; AKT; MAB; PH2).

Camellia sinensis (Green Tea)
(Food farmacy, sold and justifiably promoted for many indications)

INDICATIONS (GREEN or BLACK TEA): `Acne (1; WO3); Acute Diarrhea (1; SHT); ADD (f; DAA); `Adenoma (1; KC2); `Aeromonas (1; CHA); `Aflatoxin (1; WO3); Agitation (f; PH2); Alcoholism (f1; PH2; X16436093); Allergy (1; WO2; X19003003); Alzheimer's (1; COX; FNF; PAC; ` X18078701; X16469995); `Amyloidosis (f; X18317666); `Anemiagenic (1; X18060378); Angina (1; DAA); Anorexia (f; KAB; PH2); Apoplexy (f; JNU); `Arteriosclerosis (1; VAD; WO3); Arthrosis (1; COX; FNF; WOI; `X18936206` X12507586); `Asthenia (1; VAD); Asthma (1; AKT; APA; KC2; WO2; X19020774);); Atherosclerosis (1; CHA; JNU; X16697267 ); `Bacillus (1; CHA); **Bacteria (12;** AKT; CHA; WO2; X11138536); Bite (f; DAA); Bladderstone (f; WO2); Bleeding (1; WO2); `Botulism (1; CHA; WO3); Bronchosis (1; WO2); Bruise (f; DAA; ROE); Burn (f; DAA; KC2); Cancer (1; APA; COX; X19016405); Cancer, bladder (1; CHA; X17234229 ; X16734861; X12622713); Cancer, breast (1; KC2; PAC; PH2; X18228206; X17407311; X17234229; X16519995; X16404708); `Cancer, cervix (1;

X12804120); Cancer, colon (1; APA; CHA; KC2; PH2; X18549879; X18228206; X17234229); Cancer, esophagus (1; APA; JNU; PAC; WO2; X17234229); Cancer, intestine (1; PH2; WO2); Cancer, liver (f1; APA; CHA; KC2; X18228206; X17234229; X16481065); Cancer, lung (f1; APA; CHA; KC2; PAC; PH2; WO2; X18228206; X17585882; X17234229; X17169857; X17162651); `Cancer, mouth (1; X17234229; X16859662); `Cancer, ovary (1; X16786054); **Cancer, pancreas (12;** APA; PH2; X17234229); **Cancer, prostate (12; KC2; X17914164;** X17906295; X17234229; X17015254; X16989596; X16786054 ; X12627508); **Cancer, rectum (12;** PAC; PH2); Cancer, skin (1; CHA; KC2; JNU; X17429584); Cancer, spleen (1; CHA); **Cancer, stomach (f12;** KC2; JNU; PH2; WO2; X18228206; X17234229); Cancer, urinary (f1; KC2); `Carcinoma (1; X17427433); **Cardiopathy (1`2**; APA; KC2; PH2; SKY; X18848434; X16404706); **Caries (12;** AKT; JAD; PH2; X17577746; X11526894; X11289514); \Cellulite (1; VAD; FT71:S73); Cerebrosis (f1; CHA; WO2; WO3); `Cervicosis (1; CHA); Circulosis (f; PH2); `Clostridium (1; CHA; WO3); Cold (f1; APA; CHA; JNU; WO2; X17914132); Colic (f1; JNU; KC2); Colitis (1; APA); `Condyloma (1; CHA); \Conjunctivosis (f; EGG; ROE); Consumption (f; JNU); Cough (1; APA); Cramp (1; AKT; `HOS); Cystosis (f; WO2); `Dementia (`f1; WO3; X18614745; `X18078701; `X17679672; X16469995); \Depression (1; NAD; PH2; X17205714); `**Dermatosis (12;** `HOS; WO3; X11138536); `Diabetes (1; DIA; X17184499; X16846594; X12766099); Diarrhea (1; AKT; APA; PHR); Dropsy (f; DAA); **Dysentery (12;** KC2; PNC; WO2); Dyslipidemia (1; X17184499; X16846594); Dyspepsia (f1; CHA; PH2); Edema (f; DAA; WO2); Emphysema (1; DAA; `HOS); `Respirosis (1; CHA); `Endocardosis (1; WO3); `Endotoxemia (1; 17987129); Enterosis (1; APA; PH2; X16739069; X16678978 ); Enterovirus (1; CHA; WO2); Epilepsy (f; DAA; JNU); Escherichia (1; PH2; WO3; X18166124 ); Esophagosis (1; APA); Fatigue (f1; CHA; DAA; PH2; VAD); Fever (f; CHA; PH2; WO2); `Fibrosis. (1; `X18718119; X17235729; X16841034; X16436093; X12791596); \Flu (f1; CHA; `HOS; ROE; X17914132);`Fungus (1; X16719518; ` X7422010); Gastrosis (f1; CHA; PHR; PH2; ROE; X17077516; X16678978); Gingivosis (1; SKY; `12472837); `Glioma (f; X17848749); Goiter (1; WO2); Gout (f1; WO2; X16608214); `FAC; is (1; CHA; WO3); Hangover (f; DAA); Headache (f1; APA; CHA; KAB; NAD; PH2); `Helicobacter (1; CHA;X 17090112); `Hemachromatosis (1; X16798656);`Hemicrania (f; KAB); Hemorrhage (1; APA); `Hemorrhoid (f; KAB); `Hepatosis (1; X18718119; X18203899); Herpes (1; AKT; CHA; `HOS); **High Blood Pressure (f1`2;** `HOS; SKY; X18848434; X17261979); **High Cholesterol (1`2**; KC2; SKY; X18848434; X17184499; X16925113;); High Triglycerides (1; SKY; X17184499; X16819905); `HIV (1; KC2; PAC); Huntington's (1; X16893904); Hyperdipsia (f; PH2); `Hyperglycemia (1; X17184499; X12766099); `Hyperlipidemia (1; CHA; X16846594; X16819905); Hyperthyroid (1; WO2); `Hypertriglyceridemia (1; X17420597); `IBS (1; X16678978); `**Impetigo (12;** X11138536); `Impotence (1; X18565706); **Infection (12;** CHA; SKY; X16719518 ; X11138536); **Inflammation (1`2;** CHA; COX; HOS; X18848434; X16980889; X16739069; `X12507586); `Ischemia (1; X16443357); Keloid (1; X16841034); Kidneystone (f; WO2); Lethargy (1; JNU); `Leukemia (1; WO3; X16839211); `Leukoplakia (1; X15831086)`Lupus (f1; X16756750); Malaria (f; PH2); Melanoma (f1; JNU; X18955299; X17169857); `Meningitis (1; CHA); Metastasis (f1; JNU; X18549879; X17169857; X12643642); Migraine (f; DAA; JNU; PH2); `MRSA (1; CHA; `X18781360); `Mucososis (1; X18155512); `Myalgia (1; X17161977); `Mycosis

(1; X16719518; ` X7422010); Nausea (f; PHR; PH2); Nephrosis (f1; WO2; WO3); \Neuralgia (1; `HOS; NAD); \Neurasthenia (1; NAD; ROE; VAD; X16469995); `Nicotinism (1; X16864941); Obesity (1; APA; CHA; FNF; JNU; TEA; VAD; WO3; X17184499; X16925113; X16846594; X16404708); Odontorrhagia (1; APA); Ophthalmia (f1; DAA; KAB; X17262883); Pain (f; PH2; ROE); `Pancreatosis (1; `X18718119; X16436093); `Papilloma (1; TEA); Paralysis (f; JNU); ``Parkinson's X18452993; `Periodontosis (1; X12472837); **Plaque (12;** PH2; WO3; `X12472837); `Plesiomonas (1; TEA); Polyp (1; APA; X18490575); `Propiniobacterium (1; WO3);`Pseudomonas (1; WO3); `Pulmonosis (1; X17235729); `Respirosis (1; TEA); `Rhinosis (1; `HOS; X18490575; X18155512); Rhinotracheitis (1; TEA); `Rotavirus (1; TEA);`Sepsis (1; X17987129); `Septic Shock (1; X16980889); `Septicemia (1; TEA); Shingle (1; AKT); `Sjogren's (f1; X16756750); Skin Cancer (1; APA); `SLE (f1; X16756750); Smallpox (f; DAA);`Spasm (1; `HOS); `Spermatorrhea (1; X18565706); `**Staphylococcus (12; KC2**; TEA; X17090112; X11138536); `Steatosis (1; TEA; X18203899); `Stomachache (f1; TEA); Stomach Cancer (1; APA); `Stomatosis (1; X15831086); Stone (f; JNU); `**Stress (12; X17013636**); `**Streptococcus (12;** PH2; WO3; X18817265; X11138536); Stroke (1; APA; JNU); Sunburn (1; APA); Swelling (f; DAA); `Syndrome-X (1; X17184499; X16846594; X 12766099);`Thirst (f; KAB); `Thrombosis (1; WO3); Toxemia (f; DAA); `Tumor (1; `HOS); Ulcer (1; AKT; APA; X17077516); `Urethrosis (1; TEA); `VD (f; WO3); `Vaccinia (1; `HOS); Vertigo (f; JNU); `Vibrio (1; TEA); Virus (f`1; AKT; `HOS); Vomiting (f; PH2); `Worm (1; X18404315); Wrinkle (1; APA); \Yeast (1; PR14:207)

Curcuma longa (Turmeric)
(One of the top 5 medicinal spices, with some anticancer activities, proven to my satisfaction)

INDICATIONS (TURMERIC): Abscess (f1; FNF; TRA); `Achlorohydria (1; KHA); `Adenocarcinoma (1; `HOS; MES); Adenoma (1; `HOS; MES; X7954412); Adenopathy (1; DAD; JLH; X16737669 X7954412); `Alcoholism (1; `TEU; X16691314); Allergy (f1; TUR; WAM; X17569221); X17211725); Alzheimer's (1; COX; FNF); Amenorrhea (f1; BGB; PH2; `TEU; WHO); `Anemia (f; TUR); **Anorexia (f12;** BGB; BIB; BRU; PHR; PH2; TUR; X17569218); Arthrosis (f1; COX; KAP; MAB; WAM; WHO; X16781571); Asthma (f1; FAJ; MAB; TUR; WHO; `X17569221); X17211725); Atherosclerosis (1; MAB; SKY; VAD; JMF8:246; `X18602074; X17211725); Athlete's Foot (1; FAJ; FNF); `Atony (f; DEP); \Bacillus (1; X10552805); \Bacteria (1; X10552805); `Biliouness (f1; KAB; TUR; VAD); Bite (f; BIB; `DEP; PH2); Bleeding (f; PH2); Boils (f1; DAD; WHO); \Bowen's Disease (1; X11712783); Bronchosis (f; BIB; `DEP; PH2); Bruise (f; DAV; `DEP; IHB; PED; PH2; TUR; WHO); `Burlitt's Lymphoma (1; X18852135); Bursitis (1; SKY); Cancer (f1; JLH; MAB; X17211725); Cancer, abdomen (1; COX; FNF; JLH); \Cancer, bladder (f1; X18342436; X16596191; X11712783); Cancer, breast (f1; COX; FNF; MAB; MES; TUR; `X19138983; X17448598; X16781571); \Cancer, cervix (f1; TUR; X17448598; X11712783); Cancer, colon (f1; COX; FNF; JLH; JNU; MES; `X X18794115; X18423603; 17448598; X17201158; X17044774; X16820928; X16781571; X16737669; X16712454); Cancer, duodenum (f1; `TEU; X7954412); `Cancer, epithelium (1; X17448598); \Cancer,

esophagus (f1; JAC7:405; `TEU; TUR); `Cancer, intestine (f1; JLH; `TEU; TUR); Cancer, joint (f1; JLH; MAB); Cancer, kidney (f1; JLH; TUR); \Cancer, liver (f1; `TEU; JAC7:405); \Cancer, lung (f1; TUR; X16521985); Cancer, mouth (f1; COX; FNF; JLH; TUR; `X 17448598;); Cancer, nose (f1; COX; FNF; JLH); Cancer, ovary (f1; JLH; X17174384; X163765850); `Cancer, pancreas (1;18347134 `X 17448598; X17440100) Cancer, prostate (f1; JLH; MES; TUR; `X 17448598; X17332930); Cancer, rectum (1; X17044774); Cancer, sinew (f1; COX; FNF; JLH); \Cancer, skin (f1; MES; `TEU; X16781571 X16712454; X7954412); \Cancer, stomach (f1; TUR; JAC7:405; X17448598; X16712454); \Cancer, uterus (f1; `TEU; X11712783);` Candida (f1; TUR); `Carcinoma (1; TUR); Cardiopathy (f1; AKT; MAB; TUR; `X15622377; `X19153099); Cataracts (f1; MAB; `TEU); Catarrh(f; `DEP; UPW); `Cerebrosis (1; `TEU); `Cervical Dysplasia (1; WAF); Chestache (f; PH2); `Chickenpox (f; TUR); Childbirth (f; DAD); **Cholecocystosis (12;** APA; KOM; PHR; SHT; TUR; VAD; WHO; `JAF51:6802); `Cholera (f; SKJ); \Circulosis (f; BOW); Cold (f; `DEP; KAP; NPM; PH2); Colic (f; APA; PED; PH2; TUR); `Colitis (1; X17429738; X17276891); Coma (f; DAD); Congestion (f; APA; BIB;`DEP); Conjunctivosis (f; KAB; MAB; PH2; SKJ; SUW; `TEU), Constipation (f; PH2; `X18484280; ); `Convulsion (f; IHB); `COPD (1; X17569221) Coryza (f; `DEP; KAB); `Cough (f; NPM); Cramp (f1; AKT; BIB; DAD); `Crohn's (1; X16387689);`Cystic Fibrosis (1; X16239599 ); Cystosis (f; PH2); `Depression (f 1; X18420184;` X17955367; X16504000; X17134862; X17022948; X16651723; X16171853); `Dermatomycosis (1; `TEU); Dermatosis (f1; AKT; `DEP; MAB; PH2; SUW; `TEU; WHO; WOI; `X18484280;); \Diabetes (f1; BOW; JMF8:251; `X18484280; X17226069); Diarrhea (f1; APA; `DEP; IHB; WHO; `X18484280; ); `Dipsomania (1; (X16691314); Dropsy (f; DAD); Duodenosis (1; X7954412); `Dysentery (f; IHB); Dysgeusia (f; `HOS; KAB); `Dyskinesia (f 1; VAD; X18022680 ); `Dyslactea (f; SKJ); Dysmenorrhea (f1; AKT; APA; DLZ; FAJ; PED; WHO; 17569218); **Dyspepsia (f12;** KOM; MAB; PH2; SKJ; WHO; `X18484280); Dysuria (f; ADP; DAD); `EBV (1; `HOS; TUR); Eczema (f1; BGB; FAJ; KAP; MAB; `TEU); Edema (f1; KAP; PH2; `TEU); Elephantiasis (f; DAD); `Embolism (X18611416; X18826584)`Encephalomyelitis (1; TUR); Enterosis (f1; AKT; DAD; PH2; `TEU; WHO); Epilepsy (f; WHO; X16028990); Epistaxis (f; DAD; PH2); `Epithelioma (1; X17448598); `Escherichia (1; TUR); \Esophagosis (1; JAC7:405); Fever (f1; APA; BIB;`DEP; COX; `TEU; TUR); Fibrosis (1; BGB; MAB; X17569221; X19152370); `Fistula (f; SKJ);`Fit (f; DEP); Fungus (f; BIB; PH2); Gallstones (f1; APA; MAB; `TEU); Gas (f1; APA; IHB; PH2; TUR); Gastrosis (f1; PH2; VAD); `Gingivosis (1; X18929638); Glioma (1; X17562168 ;X17395690); Gonorrhea (f; BIB; KAB); Grey Hair (f; HAD); \Fungus (1; LIB); Headache (f; PH2); `Helicobacter (1; TUR); `Heartburn (f; TUR); Hematemesis (f; DAD; PH2); Hematuria (f; DAD); Hemorrhage (f; PED); Hemorrhoid (f; FAJ; MAB); **Hepatosis (f12;** AKT; APA; DAD; DEP; `HOS; MAB; MD2; PED; PHR; PH2; PNC;`TEU; TRA; `X19152370; `X19069843 ; `X18484280; X17569218`X16691314); `Herpes (f; EGG); High Blood Pressure (1; KAP; MAM); High Cholesterol (1; AKT; APA; KHA; MAB; TRA; VAD; JMF8:246); High Triglycerides (1; KHA; MAB; TRA); `HIV (1; `HOS); `Hyperacidity (f; ADP); `Hyperemesis (f; `TEU); `Hyperhomocysteinemia (1; X15622377); `Hyperkinesi`s (1; X18022680); **Hyperlipidemia (12;** MAB; PHR; JMF8:256); `Hypoacidity (1; KHA); `Hypothermia (f; SKJ); Hysteria (f; DAD; `DEP); `IBD (1; TUR; X17569223); IBS (1;

PED); **Infection (f12;** MAB; MPI; PH2); **Inflammation (f12;** APA; `DEP; `HOS; KOM; PHR; PH2; `TEU; TRA; WAM; WHO); `Ischemic (1; X17955367 ;X16504000); Itch (f; APA; KAP; PH2; TUR); Jaundice (f1; `ADP; DEP; MAB; `TEU; TRA; TUR; X17569218); Laryngitis (f1; BIB; COX); \Leishman`ia (1; `TEU; X10865470); Leprosy (f; PH2; TUR); Leukemia (f1; AKT; `HOS; TUR; X18396784; X17448598; X17201156; X16521985; X16364242); Leukoderma (f; DAD; `X18484280); \Leukoplakia (1; X11712783); Lichen Planus (f; X17604143); Lymphoma (1; BIB; COX; `HOS; X17182546); Malaria (f; KAB;KAP; PH2; WOI; `X18484280); `Measles (f; TUR); `Melanoma (1; `HOS; TUR); `Metastasis (1; `HOS); Morning Sickness (f1; FAJ; MAB); Mucososis (f; PH2; TUR); `Multiple Sclerosis (1; X17569223); `Mycobacteria (1; TUR); Mycosis (f1; `DEP; FAJ;PH2; X8824742); `Multiple Sclerosis (1; X17569223); `Mycobacteria (1; TUR); Mycosis (f1; `DEP; FAJ;PH2; X8824742); `Myelodysplasty(1; `X18324353) `Myeloma (1; `X18324353 ; X17404048); `Nausea (1; `HOS); \Nematode (1; X8221978); \Nematode (1; X8221978); Nephrosis (f1; AKT; PH2; X17002671); `Nicotinism (1; (X16691314); `Nyctalopia (f; SKJ); Ophthalmia (f1; AKT; DAD; `DEP; IHB; PH2); Orbital Pseudotumor (1; PR14:443); **Osteoarthrosis (f12;** KHA; MAB; `TEU; X12723628); Osteoporosis (1; X17182546); `Otorrhea (f; DEP); Ozoena (f; KAB); Pain (f1; ADP;BIB; `DEP; COX; FAJ; `TEU; TUR; WHO; X16028990); Pancreatitis (1; TUR; X17900536); `Papilloma (1; `TEU;);Parasite (f; BIB; DAD; KAP LIB); `Parkinson's (1; X17900536); `Periodontosis (1; X18929638); \Plasmodicide (1; X10865470); Polyp (f1; COX; JLH; JNU; MES); `Proctosis (f; SKJ); `Pseudomonas (1; TUR); Psoriasis (1; FAJ; FNF; MAB; `TEU; `X18484280; `X17569223; X16387689); Puerperium (f; FAJ; MAB; `TEU); `Pulmonosis (1; X17569221); `Respirosis (1; X17569221); Radiation (1; AKT); Restenosis (1; MAB); Rheumatism (f1: BIB; COX; SKY; `TEU); Rhinosis (f1; COX; JLH); Ringworm (f; APA; BIB; `DEP; KAP; PH2); `Salmonella (1; TUR); `Sarcoma (1; `HOS); **Scabies (f12;** BGB; `DEP; KHA; TUR); `Schistosoma (1; `X19143127; X17948736; X 17907745); `Shock (1; TUR); `Sinusitis (f; ADP; TUR); Smallpox (f; DAD; TUR); `Snakebite (1; JAF51:6802); **Sore (f12;** KHA; PH2); Sore Throat (f; PH2); `Sortase-A-Inhibitor (1; X16277395);`Spasm (f; IHB); Sprain (f1; DEP; IHB; MAB; SUW); Staphylococcus (1; FAJ; MPI; TUR; UPW); `Sting (f; DEP); `Stomatosis (f; X17604143); Stone (f1; HHB; MAB); `Stress (1; `HOS; TUR; X17022948); Stroke (f`1; BOW; PH2; X18611416); Swelling (f1; AKT; COX; NPM; PH2; TUR); Syphilis (f; DAD); `Thalassemia (1; X17897073); `Thrombosis (f1; TUR; VAD; X18611416; X18826584); `Thrush (f1; TUR); `Tonsilosis (f; NPM); Trauma (f; AKT; X16028990); ``Tuberculosis (1; X15203565; X11591115); `Tumor (1; `HOS); Ulcer (f1; BIB; COX; FAJ; `HOS; PED; WHO; X16327153); `Unconsciousness (f; SKJ); **Uveosis (12;** AKT; `TEU; X18421073); VD (f; BIB; DAD); Vertigo (f; BIB; `DEP; DAD; FAJ); \Virus (1; `HOS; X10389986); Vomiting (f; PH2); Wart (f; JLH); Whitlow (f; JLH); \Worm (f1; `DEP; X8221978); Wound (f1; APA; BGB; IHB; PH2; SUW; WAM; `X18929638; `X18655004; X17900536; X16286372); Yeast (f1; PED; TUR).

Eleutherococcus senticosus (Eleuthero)
(Sold widely as an alternative to ginseng, adaptogenic tonic)

INDICATIONS (ELEUTHERO): ADD (f; SKY); Adrenopathy (1; MAB); Alzheimer's (f; SKY); Anorexia (f; APA; BGB; MAB; PH2); Arrhythmia (1; APA); Arthrosis (f;

APA; CRC; MAB; PH2); Atherosclerosis (f; APA); Backache (f; APA; MAB); `Borreliosis (1; LYM); Bronchosis (1; BGB; CRC; DAA); Cachexia (1; SHT); Cancer (f; APA); Cancer, Stomach (f; CRC; DAA); Cardiopathy (1; APA; BGB; DAA); CFS (1; APA; LYM; MAB; SKY) Cold (f; SKY); **Convalescence (2;** KOM; SHT); Cramps (f; MAB); **Debility (2;** APA; KOM; PH2; SHT); Depression (1; APA; LYM; MAB); Diabetes (1; APA; MAB; PH2; SKY); Dysuria (f; MAB); Edema (1; MAB); **Fatigue (2;** AKT; KOM; SHT; PH2; WAM); Fibromyalgia (1; SKY); Flu (1; ABS; SKY); Gastrosis (f; DAA); Glaucoma (1; BGB); \Gout (1; PR14:489); Heart (f; CRC); Hemiplegia (f; CRC); \Hepatosis (1; LYM; PR14:489); Hip (f; PH@); HIV (f; APA); Hypercholesterolemia (f; CRC); Hyperglycemia (1; PED); Hypertension (f; APA; CRC); Hypotension (f; APA); Hypoxia (f; CRC); Impotence (f; CRC; PH2; SHT); Immunodepression (1; KOM; SHT; WAM); Inappetence (f; CRC); Infection (1; PHR; PH2); Inflammation (f; APA); Insomnia (1; APA; CRC; MAB; PH2); Leucocytosis (1; MAB); Leucopenia (1; MAB); Longevity (f; DAA); Lupus (f; SKY); `Lyme (1; LYM); Mental and Physical Dysfunction (1; LYM; SHT); `Motion Sickness (1; LYM); Myopia (1; BGB); Nephrosis (f; APA; PH2); Neurasthenia (f; CRC); Pain (f; PH2); Pulmonosis (f; CRC); Radiation (f; APA); `Respirosis (1; LYM); Rheumatism (f; APA; CRC; DAA); \Rhinovirus (1; ABS); \RSV (1; ABS); Sore Throat (f; SKY); `Spasm (f; LYM); Stress (1; AKT; FAY; KOM; LYM; MAB; WAM); Swelling (f; MAB); Thyroid (1; LYM: MAB); Trauma (f; MAB); \Virus (1; ABS); Water Retention (f; PH2).

Glycine max (Soybean)

(Studied by the Late Judah Volkman+ and widely sold as a food farmacy item, in part for its mix of antiangiogenic isoflavones and quercetin. (Angiogenesis = prevents new blood vessels you prevent cancer)

INDICATIONS (SOYBEAN): Aging (f; BGB); `Ague (f; DAA); Alcoholism (f1; BGB; DAW; FNF); `Allergy (f; LIB); `Alopecia (f; DAA); Anemia (1; BGB; PH2); Anorexia (f1; DAW; PHR; SHT); Arthrosis (f; DAA; PH2); `Ascites (f; DAA); `Asthma (f; LIB); `Ataxia (f; DAW); `Atherosis (1; TEU); `Blindness (f; DAA); BPH (1; BGB); Burn (f; LIB); Cancer (1; X15584372); `Cancer, bladder (1; `TEU); `Cancer, breast (1; `TEU; X15584372); : Cancer, colon (1; 18710248); `Cancer, intestine (1; `TEU); `Cancer, liver (1; `TEU);`Cancer, prostate (1; `TEU; X15584372); Cancer, uterus (1; LIB; `TEU); Cardiopathy (1; BGB; TEU; X12562012); Cerebrosis (f; PH2); `Chest Cold (f; DAW); `Childbirth (f; DAW); `Chill (f; DAA); Cholecocystosis (f; PH2); `Cold (f; DAA); `Colic (f; DAA); `Complexion (f; DAW); `Concentration (f; HH2); Confusion (f; HH2; PH2); `Corneal Opacity (f; DAA); `Cough (f; LIB); Debility (f; PH2); Dermatosis (f; BGB; DAA); Diabetes (1; BGB; EFS; IHB; KC2; TEU); `Dogbite (f; DAA); `Dropsy (f; HH2; `TEU); `Drunkenness (f; DAA);`Dumping Syndrome (1; HH2; `TEU; X1237939); `Dysentery (f; DAA);`Dyspnea (f; DAA); `Eczema (f; DAA); Edema (f; BGB; LIB); Endometriosis (1; TGP); Enteralgia (1; BGB;); Enterosis (PHR; SHT); `Enuresis (f; DAW); `Fever (f; DAA; HH2); Fibrosis (f; BGB); `Fungus (f; DAA);`Gas (f; HH2; `TEU) Gastrosis (f; BGB; DAA); `Halitosis (f; DAW); `Headache (f; DAA); `Hematuria (f; DAA);`Hemorrhoid (f; DAA); Hepatosis (f1; BGB; DAA; PHR; PH2; SHT); High Blood Pressure (f1; BGB; TAN); **High Cholesterol (12;** DAA; PHR; PH2; SHT; `TEU; X12562012); **`Hot Flashes (f12; X17913408;** Hyperhidrosis (f; PH2);

Hyperlipoproteinemia (1; PHR; SHT); `Impotence (f; DAW); `Infection (f; DAA); `Insomnia (f; LIB); `Intoxication (f; DAW); `Keloid (f; LIB); `Labor (f; DAW); `Leprosy (f; DAA); `Malaria (f; DAW); `Marasmus (f; DAA);`Marrow (f; DAW); `Melancholy (f; DAA); Melanoma (1; FNF; `; X15584372);); **Menopause (12;** BGB; FNF; KC2; TEU; X16414334; X17913408); `Metrorrhagia (f; DAW); `Mycosis (f; DAA); `Nausea (f; DAA); Nephrosis (f1; BGB; DAA; X16671961); Neurosis (f; BGB; HH2; PH2); `Obesity (1; X15228214; `X17887951); ); `Ophthalmia (f; DAA); Osteoporosis (1; FNF; JAD; `TEU; X12562012); `Osteosis (f; DAA); Pain (f; LIB; PH2); `Pregnancy (f; DAA);`Proctosis (f; DAA); `Puerperium (f; DAW); Retinopathy (1; FNF); `Rheumatism (f; DAA); Rickets (f; BGB); `Scald (f; DAA); `Senilty (f; HH2); `Smallpox (f; DAA);`Snakebite (f; DAA); Sore (f; BGB; DAA);`Splenosis (f; DAW); `Splinter (f; DAW); Steatosis (f; BGB); `Swelling (f; DAA); Syndrome-X (1: SYN); `Tinea (f; DAW); Toxemia (f; BGB); Tuberculosis (f; BGB; LIB); `Ulcer (f; DAA);`VD (f; DAW); `Vertigo (f; DAW).

Nasturtium officinale (Watercress)*
(Like all crucifers, mustard, cabbage family, this nutritious edible species is properly touted as a cancer preventive.)

INDICATIONS (WATERCRESS): Acne (f; BIB; MAD); Adenopathy (f; JLH); Alopecia (f; JNU; VAD); Anemia (f; JFM; VAD); Anorexia (f`1; DEP; PHR; `TEU; VAD); Anthrax (f; BIB); Arthrosis (f; HH2;PHR; PH2); Ascites (f; MAD); Asthenia (f; BGB; VOD); Asthma (f; BIB; WOI); Bacteria (1; WOI; `X17726732; X17260672); Blemish (f; BGB); Boil (f; JLH); **Bronchosis (f12;** AHL; FAD; PHR; VOD); Cancer (f1; APA; JLH; `TEU; X17284750); Cancer, breast (f1; APA; JLH); `Cancer, colorectal (f1; `X17044779; X12716290); Cancer, esophagus (f1; JNU); Cancer, face (f1; APA; JLH); Cancer, gland (f1; APA; JLH); Cancer, lung (f1; APA; JNU; X8634661); Cancer, nose (f1; APA; JLH); `Cancer, prostate (f1; X15016658); Cardiopathy (f1; BIB; FAD; `X17980985); **Catarrh (f12;** BGB; KOM; PH2; `TEU; VOD; ` X17260672); Cold (f1; BIB; FNF); `Colic (f; X15878246); **Congestion (2;** APA; KOM); **Cough (2;** APA; DAA; MAD; PHR); Cystosis (f; MAD); `Debility (f; VOD); Dermatosis (f; BIB; EGG; JFM; JNU); Diabetes (f; DIA; MAD; VAD); Dropsy (f; MAD); Dyscrasia (f; MAD); `Dyskinesia (f; VAD); Dysmenorrhea (f; BIB); Dyspepsia (f`1; APA; MAD; `TEU); Earache (f; MAD); Eczema (f; MAD); `Enterosis (f; EGG); `Escherichia (1; X17260672); Exanthema (f; MAD); Fever (f; MAD); `Flu (f1; BIB; X17260672); Freckle (f; BIB); `Gallstone (f; HNI); `Gastrosis (f; DAA); Gingivosis (f; MAD; VOD); Glossosis (f; MAD); Goiter (f; BIB; FAD; WOI); Gout (f; MAD; VAD); Gravel (f; MAD); `Haemophilus (1; X17260672); Headcold (f; BIB; MAD); `Hepatoma (1; X15668997); Hepatosis (f; EGG; JFM; MAD; X15878246); Herpes (f; MAD); `High Blood Pressure (f; VAD); `High Cholesterol (1; X17980985; X18325487); `High Triglycerides (1; X17980985; 18325487);`Hyperazotemia (f; VAD); `Impetigo (f; BIB); `Impotence (f; AHL); Infection (f1; MAD; `X17726732; X17260672); **Inflammation (2;** APA); Insomnia (f; BIB; MAD; NAD); Ischia (f; MAD); Jaundice (f; MAD); Kidneystone (f; MAD); `Laryngitis (f; VAD);`Leprosy (f; BIB); Lethargy (f; FAD); Liver Fluke (f; BGB); Liver Spot (f; BIB); `Metastasis (1; X17044779); `Moraxella (1; X17260672); `MRSA (1; X17260672); Mucosis (KOM); `Mycobacteria (1; X17726732);

Nephrosis (f; BIB; X15878246); Nervousness (f; APA); `Obesity (f 1; VAD; X18325487); `Odontosis (f; VAD);`Pertussis (f; BIB); `Pharyngitis (f; VAD);`Phthisis (f; AHL); Polyp (f; BIB; JLH; WOI); `Pseudomonas (1; X17260672);.Pulmonosis (f1; BIB; KAB; MAD; VOD; X17260672); **Respirosis (f12;** APA; BGB; KOM; PH2; `TEU; VAD; X17260672); Rheumatism (f; FAD; MAD; PHR); Rhinosis (f; BIB; JLH; WOI); `Scabies (f; BIB); `Sciatica (f; BIB); Scrofula (f; MAD); **Scurvy (f123;** FAD); `Seborrhea (f; VAD); Sore (f; MAD); Sore Throat (f; WOI); Splenosis (f; MAD); Staphylococcus (1; HH2; `X17260672); Stomatosis (f; DAA; MAD); Stone (f; MAD; VAD); Strangury (f; WOI); `Streptococcus (1; X17260672); Swelling (f; HH2); `Tonsilosis (f; EGG); Toothache (f; JNU; MAD); Tuberculosis (f1; BIB; JFM; MAD; X17726732); `Tumor (f1; BIB); `Urethrosis (f; VAD); UTIs (f1; BGB; BIB; PH2); Wart (f; JLH); Wen (f; JLH); Worm (f; BIB; MAD); `Wound (f; AHL; VOD).

Rheum palmatum (Turkey Rhubarb)
(Sold as laxative and in Essiac formula, touted for cancer)

INDICATIONS (CHINESE RHUBARB): Aggressiveness (1; KEB); Alzheimer's (1; COX; FNF); Amenorrhea (f; PH2; PNC); Anorexia (f1; KC2; PH2); Appendicitis (f; FAY); Arthritis (1; COX; FNF); Bacteria (1; EFS; KC2; KEB); Bleeding (f; MAD); Burn (f; CRC; DAA; FAY; PH2; PNC); Cancer (1; APA; COX; DAA; KEB); Cancer (Bladder) (f; JLH); Cancer (Breast) (1; CRC; HHB); Cancer (Cervix) (f; JLH); Cancer (Kidney) (f; JLH); Cancer (Larynx) (f; JLH); Cancer (Liver) (f; JLH); Cancer (Spleen) (f; JLH); Cancer (Stomach) (f; JLH); Cancer (Uterus) (f; JLH); Carbuncles (f; FAY; PNC); Catarrh (f; PH2); Cholecystosis (1; KEB; MAD); Cholera (f; FEL; MAD); Cold (f; MAD); Colic (f; CRC); Conjunctivitis (f; FAY); **Constipation (2;** CAN; KOM; PH2; SHT; WHO); Cough (f; MAD); Cramp (f; MAD); Delirium (f; FAY; FEL; PH2); Dermatosis (f; PH2); Diarrhea (1; CAN; CRC; PH2; SHT); Dropsy (f; CRC; MAD); **Dysentery (2;** EFS; KEB; MAD); Dysmenorrhea (f; DAA; MAD); Dyspepsia (f; DAA; SHT); Dysuria (f; DAA); Eclampsia (1; APA); Edema (f; PH2); **Endometriosis (2;** APA; KEB); Enteralgia (f; PNC); **Enterosis (2;** KEB; PH2); Epistaxis (f; FAY); Fever (f; APA; CRC; DAA; MAD); Flu (1; KEB); Gas (1; FAY); Gastritis (1; KEB; MAD; PHR; PH2; SHT); Gastrorrhagia (f; APA); Gingivitis (1; FAY; KEB); Glossitis (f; FAY); Gout (f; MAD); Headache (f; APA; CRC; FAY); Hematemesis (f; FAY); Hemophilia (1; KEB); Hemorrhage (1; KEB); Hemorrhoid (1; APA; FEL); **Hepatitis (2;** FAY; KEB; MAD); Herpes (1; KEB); **High blood pressure (12;** APA; CRC; KC2; KEB); **High cholesterol (12;** KC2; KEB; PM66:753); **High triglycerides (2;** KEB); Hyperlipidemia (1; KC2; KEB); Hypotension (f; WHO); Infection (1; CRC; KC2;); Inflammation (1; COX; FNF); Irritability (1; KEB); Jaundice (1; DAA; FAY; KEB; MAD; PNC); Leukemia (1; CRC); Malaria (f; CRC; DAA); Nephrosis (1; APA; KEB); Obesity (f1; APA; KC2; PHR); Odontosis (f; PH2); Pain (f; KEB; PH2); Pancreatitis (1; KEB); Pregnancy (f; APA); Rheumatism (f; MAD); Shingles (f; FAY); Sore (1; APA; CRC; DAA; FAY); Splenosis (f; MAD); Stomachache (f; APA); Stomatitis (1; FAY; FEL; KEB); Swelling (f; FAY); Tenesmus (f; PH2); Toothache (f; APA; CRC; FAY); Ulcer (1; KEB); Vaginitis (1; KEB); Water Retention (f; MAD); Worm (f; MAD); Wound (f; APA); .

Rumex acetosella (Sheep sorrel)
(Sold in Essiac formula, touted for cancer; no 2's, before update)

INDICATIONS (SHEEP SORREL): Bleeding (f; BIB); Bruise (f; DEM); Cancer (fl; BUR; FAD; JLH; SKJ; TOM; WOI); Cancer, colon (fl;FNF; JLH); Cancer, eye (fl;FNF; JLH); Cancer, face (fl;FNF; JLH); Cancer, hand (fl;FNF; JLH); Cancer, skin (fl;FNF; JLH); Cancer, stomach (fl;FNF; JLH); Cancer, throat (fl;FNF; JLH); Dermatosis (f; EFS; JLH); Diarrhea (f; FAD); Dysmenorrhea (f; FAD); `Dyspepsia (f; BIB); Dysuria (f; KAB; PNC); Epithelioma (1; FNF; JLH); Fever (f; FAD; KAB; NAD); Gastrosis (f; DEM); Inflammation (f; BUR; FAD); Jaundice (f; HJP); Metrorrhagia (f; FAD); Nephrosis (f; HJP; KAB); Pain (f; HJP); Scrofula (f; FEL); `Scurvy (fl; BIB); Sore (f; BUR; DEM); `Sore Throat (f; JLH; TOM); Sunburn (f; HJP); Syphilis (f; FEL); Tuberculosis (f; DEM); Tumor (fl; BUR; FNF FAD; SKJ); Wart (f; DEM; JLH); Wen (f; JLH).

Smilax aristolochiifolia (Sarsaparilla)
(Widely sold, e.g. for Lyme Disease; contains compounds which can be converted to hormones)

INDICATIONS (SARSAPARILLA): `Acne (fl. RAI); `Alzheimer's (f. RAI); Anorexia (f; MAD; RAI); Arthritis (fl; APA; CRC; RAI; SKY); Asthma (f; MAD); `Burn (f. RAI); Caked Breast (f; MAD); Cancer (fl; APA; CRC; JLH; RAI); Cardiopathy (f; MAD); `Cold (f. RAI); Colic (f; MAD); Coma (f; MAD); `Cough (f. RAI); Cramp (f; MAD); Cystosis (f; MAD); `Debility (f. RAI); `Dementia (f. RAI); Dermatosis (fl; APA; CRC; KOM; PH2; RAI); Dyscrazia (f; MAD); Dysentery (f; PNC); Dyspepsia (f; APA; CRC; RAI); Eczema (fl; CRC; MAD; RAI; SKY); Enterosis (1; APA); Exanthema (f; MAD); Fever (1; APA; CRC); Furuncle (1; HH2); `Gallstone (f. RAI); Gas (f; MAD); Gastrosis (1; APA); Gonorrhea (fl; APA; CRC; FEL; RAI); Gout (f; MAD; RAI); Headache (f; MAD; RAI); Hematuria (f; MAD); Hepatosis (f; FEL; MAD); Herpes (f; MAD); `High Blood Pressure (f. RAI); IBS (1; PED); Impotence (f; APA; RAI); `Infection (f. RAI); Inflammation (1; APA; PH2); Itch (f; PH2); `Kidneystone (f. RAI); Leprosy (fl; CAN; CRC; RAI); Leukorrhea (f; MAD); Lupus (f; MAD); Lyme (f; LYM); Nephrosis (f; CRC; KOM; MAD; PH2; RAI); `Oliguria (f. RAI); `Pain (f. RAI); **Psoriasis (f12;** APA; KOM; PH2; PNC; RAI; SKY); Pyelosis (f; MAD); `Rash (f; RAI); Rheumatism (fl; APA; CRC; MAD; PH2; RAI; SKY); Roseola (f; MAD); Scabies (f; MAD); Scrofula (f; CRC; MAD); Sore (f; MAD); Sore Throat (f; FEL); Splenosis (f; MAD); `Stone (f. RAI); Syphilis (f; APA; HH2; PNC; MAD; RAI; USN); Tuberculosis (f; MAD); Ulcer (f; MAD); Urethrosis (f; PH2); UTIs (1; APA); VD (f; CRC; MAD; RAI); Water Retention (f; MAD); Wound (f; CRC; USN); . (Unapproved by Commission E; KOM.) Steroids used for arthritis, dysmenorrhea, menopause, PMS.

Tanacetum parthenium (Feverfew)
(I consider it about as good for migraine as pharmaceutical sumatriptan)

INDICATIONS (FEVERFEW): Addiction (Opium) (f; JFM); Allergy (f; PHR; PH2); Alzheimer's (1; COX; FNF); Amenorrhea (f; GMH; LIB); Anemia (f; CRC); Arthrosis

(f1; AKT; CAN; COX; FAD; PH2); Asthma (f1; COX; PED); `Bacillus (1; HH3); Bacteria (1; HH3); Biliousness (f; CRC; JFM); Bite (f; GMH); Bruises (f; CRC); Cancer (1; COX; CRC; FNF); \Cancer, cervix (1; BO2; FNF); Cancer, nasopharynx (1; BO2; FNF); Candida (1; HH3; LIB); \Cervicosis (1; BO2; FNF); Childbirth (f; JFM); Cluster Headache; Cold (f; CRC; FAD); Colic (f; CRC; GMH; LIB; TRA); Cough (f; GMH); Cramp (f; FAD; PH2); Depression (f; GMH); Dermatosis (PED); Diarrhea (f; CRC; JFM); Dizziness (f; AKT); Dysmenorrhea (f; FAD; PHR; PNC); Dyspepsia (f; CRC; GMH; PHR; PH2); Dyspnea (f; GMH; LIB); Earache (f; CRC; GMH; JFM); `Enterosis (f; HH3); Escherichia (f; HH3); Fever (f; APA; CRC; PNC); \Fibrosarcoma (1; BO2; FNF); Fungus (1; HH3); Gas (f; GMH; LIB); Gastralgia (f; TRA); `Gastrosis (f; HH3); Headache (1; APA; SKY; WAM); Heart (f; JFM); Hysteria (f; CRC; GMH; JFM); Infection (1; HH3); Inflammation (1; COC; FMF; PHR; PH2); Sedative (f; FAD; JFM); Lochia (f; PH2); \Lymphoma (1; BO2; FNF); Menstruation (f; CRC); Menstrual Pain (PNC); `Micrococcus (1; HH3); **Migraine (f123;** APA; FAD; PH2; TRA; WAM); Morphinism (f; APA); \Mucososis (f; LIB); `Mycobacterium (1; HH3); Mycosis (1; HH3); Nausea (f; APA); Neuroses (f; APA); Opium Addiction (f; APA); `Otosis (f; HH3); Pain (1; APA; GMH); Parasite (f; PHR; PH2); Parturition (f; CRC); \Pharyngosis (1; BO2; FNF); `Psoriasis (f; HH3); Puerperium (f; PHR); Rheumatism (f; CAN; DEM; PHR; PH2); \Rhinosis (1; BO2; FNF); Salmonella (1; HH3; TRA); Spasm (f; CRC); Staphylococcus (1; HH3; TRA); Stomachache (f; CAN; LIB); Swelling (f; CRC; DEM); Tinnitus (f; CAN); Toothache (f; CAN; HH3); Vertigo (f; AKT; CAN; LIB); Vomiting (1; AKT); Worms (f; CRC; FAD); Wound (f; PHR; PH2); Yeast (1; HH3).

Ulmus rubra (Slippery Elm)
(Sold in Essiac formula, touted for cancer)

INDICATIONS (SLIPPERY ELM): Abscesses (f; CAN; FAD); Adenopathy (f; CRC; DEM; PH2); Bleeding (f; CEB; DEM); Boils (f1; APA; CRC; GMH; PNC); Bronchosis (f; BUR; CRC); \Bruise (f; FEL); Burn (f1; APA; AUS; FAD; GMH; PH2; WAM); Cancer (f; CRC; FEL; JLH); Carcinoma (f; CRC); Cardiopathy (f; GMH); Caries (f; CRC); Catarrh (f; AUS; CRC; DEM; GMH); Chilblain (f; CEB); Childbirth (f; AUS; BUR; CRC; DEM); Cholera (f; CEB); Cold (f; SKY); Cold Sore (1; APA); Colitis (f1; APA; CAN; CRC; GMH); Conjunctivosis (f; CRC; DEM; HNI); Constipation (f; CRC; HNI); **Cough (f12;** APA; FAD; HHB; WAM); Cramp (f; CEB; CRC); Crohn's Disease (1; SKY); Cuts (f; FAD); Cystosis (f1; GMH; WAM); Dermatosis (f1; APA; AUS; PH2; PNC; WAM); Diarrhea (f1; APA; CAN; FAD); \Diverticulosis (1; FNF); Duodenosis (f; PH2); Dysentery (f; AUS; CRC; FAD); Dyspepsia (f1; FAD); Dysuria (f; CRC); Eczema (f; CRC); **Enterosis (f12;** APA; CEB; GMH); Erysipelas (f; FEL); **Esophagitis (2;** APA); Felon (f; CRC; JLH); Fever (f; CRC); Fistula (f; FEL); Fracture (f; CRC; DEM); Gangrene (f; CRC); **Gastrosis (f12;** APA; GMH; PHR; PH2; SKY); \Gleet (f; FEL); Gonorrhea (f; DEM); Gout (f; CRC; HH2; PH2); Heartburn (f; DEM; HNI; \JAH2(2):45); Hemoptisis (f; CEB; GMH); Hemorrhoid (f; CEB); Herpes (f; CRC; FEL); `IBD (f1; X11860402); Infection (f; CEB; DEM); **Inflammation (f12;** APA; AUS; BUR; CEB; WAM); Labor (f; DEM); `Laryngosis (f1; FNF); `Leprosy (f; BUR); Mastosis (f; AUS; DEM); Mucososis (f; CRC); Nephrosis (f; DEM; FEL); Ophthalmia (f; DEM); \Parotosis (f; FEL); **Pharyngosis (f12;** APA); Pleurisy (f; CRC; FAD; GMH);

`Pregnancy (f; HNI); \Proctosis (f; FEL); Pulmonosis (f; CRC; DEM); Quinsy (f; DEM); Rheumatism (f; CRC; HH2; PH2); Sore (f1; APA; FEL; HNI); **Sore Throat (f12;** APA; FAD; FEL;HNI; WAM); Stomach Distress (f1; FAD; PNC); **Stomatosis (f12;** APA); Strangury (f; FEL); Swelling (f; CEB; HHB); Synovitis (f; GMH); Syphilis (f; CRC; FEL); Tapeworm (f; CRC); \Tenesmus (f; FEL); Toothache (f; CRC; GMH); Tuberculosis (f; CRC; DEM; GMH); Tumor (f; CRC); Typhoid (f; CRC; GMH); Ulcers (f1; APA; CAN; FAD); UTI (f; CRC; GMH); Uvulosis (f; AUS); VD (f; CEB; FEL); \Virus (f; FEL); Whitlow (f; CRC; JLH); VD (f; CRC; DEM); Worm (f; CRC); Wound (f1; APA; AUS; HNI; PHR; PH2; WAM).

Uncaria tomentosa (Cat's Claw)

(Famed immunomodulator from Latin America; proofs possibly more promotional than scientific)

INDICATIONS (CAT'S CLAW): Allergy (1; APA; HH3); `Alzheimer's (f1; MCK; RAI);` Amyloidosis (1; MCK);`Anxiety (f; MCK); Arrhytmia (1; X12546715); **\Arthrosis (f12;** APA; HH3; LYM; 60P; \X11950006); Ascites (1; HH3); `Asthenia (f1; RDF3:5); Asthma (f; APA; LYM; MBC; PH2; VAD); `Bleeding (f; MCK); `**Borrelia (12;** LYM); Cancer (f1; APA; HH3; MPG; PH2; RAI; 60P; `X18048957); \Cancer, breast (1; ISSN:0250-7005); `Cancer, lung (1; `X17472470); Candidiasis (f; APA); `Cardiopathy (f1; RAI; X14668978); `Childbirth (f; MCK); \Cirrhosis (f; LYM; MBC; MPG); `Cold (f; RAI); \Colic (f; MBC); `Colitis (f; RAI); `Crohn's (f; RAI); `Cystosis (f; VAD); `Debility (f; MCK); `Dengue (1; `X18279801); `Depression (f; RAI); Dermatosis (f; HH3; LYM; MBC); Diabetes (f; VAD; 60P); `Diverticulosis (f; RAI); `Duodenosis (f; VAD); `Dysentery (f1; LYM; RAI); Dysmenorrhea (f; MCK; PH2; VAD); Dyspepsia (f; APA); Edema (1; APA; HH3; LYM; SKY; `X18494294); Enterosis (f1; APA; RAI); 1Enterobacteria (1; X17426895); Fever (f1; HH3; LYM; MCK; `X18279801); `Flu (f; RAI); Gastrosis (f1; APA; DAV; HH3); `Glioma (1; X17296291); `Gonorrhea (f; RAI); Gout (1; JAD); Hemorrhoids (1; APA);``Hepatosis (f; MPG); Herpes (f1; HH3; RAI); HIV (1; APA); `High Blood Pressure (1; X14668978); `High Cholesterol (1; LYM); `IBS (f; RAI); Immune Dysfunction (1; APA; MPG; SKY); \Impotence (f; MBC); Infection (1; MPG; HH3); Inflammation (f1; APA; LYM; MPG; RAI; SKY; `X18279801); Ischemia (1; X12546715); `Leaky Gut (f1; RAI); `Leukemia (f 1; RAI; `X18048957); `Leukopenia.(1; LYM; X12622460); `Lyme (1; LYM); `Lymphoma (1; RAI); Melanoma (1; APA); \Metastasis (1; MBC); `Myalgia (1; LYM); \Nephrosis (f; MBC); `Neuralgia (f; RAI); `Neuroblastoma (1; X17296291); `Neuroborreliosis (1; LYM); Neurodermatosis (f; HH3); `Ostealgia (f; LYM; MCK); Osteoarthritis (f; VAD); `**Osteoporosis (12;** MCK); \Pain (f1; LYM; MBC); `Parkinson's (1; MCK); `Pneumonia (1; LYM); Prostatosis (1; APA; LYM; MBC); **\Rheumatism (f12;** X11950006; MBC; MPG; RAI); ; Rhinovirus (1; HH3); `Sarcoma (1; MPG); `Shingles (f; RAI); \Snakebite (f; MBC); \Sore (f; MBC); `Staphylococcus (1; X17426895); Stomatosis (1; HH3; `X17426895); `Streptococcus (1; X17426895); `Stroke (f; RAI); Swelling (1; HH3); Thrombosis (1; PH2);Ulcer (f1; APA; DAV; LYM; MCK; VAD); `Urethrosis (f; MCK); `VD (f; RAI); Virus (f1; MPG; HH3; RAI; `X18279801); Wound (f; LYM; HH3; RAI); Yeast (f; APA).

APPENDIX III: HERB-DRUG COMPARISONS

Almonds vs. Cardiopathic Drugs for Cardiopathy

Almug (Pterocarpus santalinus) vs. Vioxx for Colon Cancer

Aloe vs. Benzocaine or Lidocaine + Bactine for Burns

Apricot Pits vs. Laetrile for Cancer

Balm of Gilead vs. Benzaepil (Lotensin) for Hypertension (aqueous extract of Commiphora opobalsamum (4 mg/kg iv) depressed systemic arterial blood pressure by 20% ($P < 0.01$) and reduced heart rate of anaesthetised rats by 14%) (X9292417)

Barley bread (w beans, fitches, lentils, millet and wheat) vs. lipitor for hypercholestrolemia

Biblical Mint vs. Cognex for Alzheimer's Disease (AD) (See papers by N. Perry on other mint species)

Biblical Rose (Narcissus) vs. Galanthamine for Alzheimer's

Biblical Wormwood vs. Antimony for Leishmaniasis ess. oil at 2 ug/ml; aqueous extract at 4 ug/ml (X11346978);

Black cumin vs. Claritin for Hay Fever (X14669258)

Black cumin's thymoquinone vs. Pharm.Antiseptics for Sepsis (Lai and Roy, 2004)

Black cumin's thymoquinone for Cancer (Lai and Roy, 2004)

Bramble vs. Aspirin for Pain (X 14522443)

Brier (Solanum incanum) vs. "Curaderm" (solasodine + salicylic acid) for Skin Cancer

Butcher's Broom vs. Preparation H for Hemorrhoids

Capers vs. Tolbutamid for Diabetes (aqueous extracts have potent anti-hyperglycemic activity in rats; without affecting basal plasma insulin concentrations. X15261975)

Carob vs. Imodium (Loperimide) for Diarrhea

Cassia (Saussurea) vs. Antibiotics for Tuberculosis (JNP61:1181)

Chickpea (a/o lentil) vs. HRT for Prevention of Cardiopathy and Osteoporosis

Chicory(Prebiotic) and Lactobacillus (Probiotic) vs. Cipro for Bladder Infections

Cinnamon vs. Avandia or Tolbutamid (Orinase) for Diabetes

Coriander vs. Chelation for Lead and Mercury Overdose (Ess. Oil comparable to sorbic acid at preventing the slimy spoilage of Vienna sausage. (Nakatani, 1994))

Cotton's gossypol vs.. Unknown Pharms as Reversible Male Contraceptive

Cumin vs. Glibenclamide for Diabetes mellitus (X12220968) (antimelanomic farnesol and perillaldehyde; anticancer beta-elemene, eugenol, limonene, alpha-pinene, and linalool)

Dandelion vs. Interferon for Hepatitis

Date Palm vs. Amphotericin B for Candidiasis (" Tackholm and Drar (1973) report that pollen of a male date palm mixed with water is a charm against childlessness.[Pollen contains estrone, like pomegranate fruits)

Dill vs. Simethicone for Gas

Faba Beans vs. Pharm LevaDopa for Parkinson's

Faba Bean, Grape , Garlic, Lentils (Chickpea), Olive Oil, Onion (Biblical Diet) for Cardiopathy,

Fenugreek vs.. Silicone for Micromastia

Fenugreek vs. Lipitor for High Cholesterol

Fenugreek: Fennel (3:1) (Hildegard's suggestion for cancer of the penis) followed by beer barley cakes (Substitute dill with anethole for the fennel)

Fig (and Benzaldehyde) vs. Laetrile for Cancer (Kings ii)

Flax vs. Etoposide for Cancer

Flaxseed vs.. Fluoxetine (Prozac) or Sertraline (Zoloft) for Depression (for vegetarians)

Frankincense vs. Celebrex for Arthritis (In the Bible, Frankincense is mentioned 16 times for worship, 3 times in Solomon's garden, twice as a tribute of honor, and only once as merchandise.

Garlic vs. Chemo for Cancer

Garlic vs. Ciprofloxacin (Cipro) for Bladder Infection (if not Anthrax)

Garlic vs. Zocor for High Cholesterol (and Alzheimer's via antiamyloid activity (X 15277073)

Grapeseed vs. Pharms for cardiopathy, diabetes, enteroparasites, fibromyalgia, gout, parkinsons (See White et al; Herbal Drug Store)

Henna vs. Benadryl for Poison Ivy

Ivyleaf Extract (Prospan) vs. Robitussin for Bronchitis (X12725580) (X12006725:

Juniper vs. Etoposide for Cancer

Laurel vs. Sumatriptan for Migraine

Lentils vs. Zocor for High Cholesterol

Lettuce(seed oil) vs. Diazepam (Valium) for Insomnia (FT67:215)

Madonna Lily vs. Nystatin for Candidiasis (Bulb extract more active than flower extract;e isolated compounds were inactive. X12501491)

Mallows vs. Robitussin for Bronchitis (2 in CR2)

Mandrake (dangerous) vs. Transdermal Scopolamine for Vertigo:

Milkthistle vs. Silymarin Interferon for Hepatosis

Mustard (better horseradish, but not mentioned per se in the Bible) vs. Dristan for Sinusitis

Myrrh vs. Synthroid for Hypothyroidism

Myrtle Oil vs. Glibenclamide for Diabetes mellitus (X15234770)

Nettle vs. Claritin for Hay Fever

Nettle vs. Celebrex for Arthralgia (British clinical studies show improvement)

Olive Oil vs. Zocor for High Cholesterol

Onion vs. Pharms for Diabetes

Pomegranate vs. HRT for Syndome X (Clinical trials for the latter; Herb Clip43832)

Poppy vs. Percoset for Pain

Rocket (Oroth of Kings 2) vs. Lorenzo's Oil for Adrenoleukodystrophy Adrenomyeloneuropathy .

Rue (Homeopathic) vs. Pharms for Neurocysticercosis (X11317525)

Russian olive vs. Pharms for Prostate Cancer Prevention

Saffron vs. Pharms for Cancer Prevention (Lai and Roy, 2004; X15239370)

Spikenard vs. Ritalin for Hyperkiness (Attention Deficit Disorder (MPI)

Sweetcane (Pure sugar) vs. Honey a/oPropolis for Topical Infections

Tares (dangerous ergotized grass) vs. Ergotamine (Ergostat) for Headache

Thorn (Ziziphus) vs. Imodium for Diarrhea (X 11167035; X 12826300)

Turmeric vs. Celebrex for Arthritis and Colon Cancer Prevention

Turmeric vs. Pharms for Cancer Prevention (Lai and Roy, 2004)

Walnut Oil vs. Fish Oil (and Suicidogenic Antidepressants Pharms) for Mania

Walnut Oil vs. Zocor for High Cholesterol (X12934760)

Watercress vs. Celebrex for Colon Cancer

Watermelon's Lycopene vs. Pharms for Prostate Cancer Prevention

Willow vs. Aspirin for Backache (X12017748)

APPENDICES IV & V: ADDITIONAL HERB/DRUG CONTRASTS FOR PLANTS THAT MIGHT BE CONSIDERED SPICES OR CULINARY HERBS

Commiphora myrrha - Myrrh - Hypothyroidism - l-Thyroxine [[Possibly equivalent]]

Coriandrum sativum - Coriander -Mercury Chelation - purified sulfur oxide [[Neither very promising but coriander probably safer]]

** Crocus sativus -Saffron -Moderate Depression - imipramine [[(30 mg saffron = 100 mg/imprimaaine). But walnut oil, saffron, and turmeric a triple Biblical whammy]]

Cuminum cyminum - Cumin - Diabetes - Cuminaldehyde = ½ acarbose (a-glucosidaseinhibitor) [[Probably equivalent]]

* Curcuma longa - Turmeric - Arthritis - Celebrex [[I'd bet on turmeric]]

Eruca sativa - Rocket - Adrenoleukodystrophy - Lorenzo's Oil [[Neither to get excited about]]

Ferula gummosa - Galbanum - Bacterial Sepsis - Antibiotics (X15567258); [[Possibly equivalent]]

Gossypium herbaceum - Levant Cotton - Male Contraceptive (Gossypol) – NAPA [[Works but dangerous]]

* Juniperus communis - Cedar- Condylomata -(Podophyllotoxin) Podophyllin [Juniper contains he same podophyllotoxin that is in mayapple, whose resin is prescribed for condylomata, and though topical and approved, kills a few people]]

Laurus nobilis - Bayleaf - Migraine - Sumatriptan [[Bay contains some of the same parthenolides as the efficacious feverfew, which needs to be compared with sumatriptan]]

Mentha longifolia - Biblical Mint - Alzheimer's -Cognex [[Biblical Mint contains nearly a dozen acetylcholinesterase inhibitors, Cognex and Aricept, the pharmaceuticals, are one AChEI's.]]

Myrtus communis - Myrtle - Edema - Oxyphenylbutazone

Nardostachys jatamansi - Spikenard - Hyperkinesis - D-amphetamine (or chlorpromazine) [[Neither herbal or pharmaceutical seem to be doing much good]]

Nigella sativa -Black Cumin - Asthma - Albuterol [[Probably equivalent]]

Origanum syriacum - Lebanese Oregano - Backache - Percoset [[Possibly equivalent]]

**Papaver somniferum - Poppy - Cough - Contac [[Codeine in the poppy is probably one of the worlds best antitussives]]

Prunus dulcis - Almond - Cancer - Laetrile [[almonds, especially bitter almonds, contain compounds like laetrile]]

Ruta chalepensis - Fringed Rue - Insect Repellent - Deet [[Possibly equivalent]]

**Silybum marianum - Milk Thistle - Hepatitis C - Interferon [[Both have proven useful but never compared to my knowledge]]

Sinapis arvensis - Charlock - Sinusitis - Sudafed [[Probably equivalent]]

*Trigonella foenum-graecum - Fenugreek- Alactea - NAPA [[Fenugreek will increase milk production and even increase the size of the boobs]]

Urtica dioica - Nettle - Hay Fever -Dristan [[Probably equivalent; only one weak trial of nettle]]

Vitis vinifera - Grape - Chemopreventive - Tamoxifen [[Probably equivalent; Biblical Bean, not exactly a spice, might be better]].....

** Biblical Bean [[Vicia faba and fenugreek contains the same pharmaceutical l-dopa prescribed for Parkinsons]]

CORRECTED SUBSTITUTE SECTION V.1.A.

TO

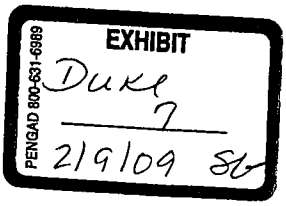
REPORT OF EXPERT WITNESS JAMES DUKE
James A. Duke, PhD, Botany
Economic Botanist, US Department of Agriculture (retired)
In the Matter of Daniel Chapter One
FTC Docket #9329

A. The MAM is a listing, recognized worldwide, which I have created and maintained for over 20 years on the United States Department of Agriculture (USDA) website. Information is put into the website about the relationship between an herb and a condition.—in this case cancer. Then the information is drawn out for a review of the current scientific status of the herb in question.

The following are Multiple Activities Menu's (MAM's) for 16 DCO herbs and their relation to cancer as recorded in the USDA website. These can be done online at my USDA website.

DANIEL CHAPTER ONE HERBS MAM's:

MAM: *Actaea (Cimicifuga) racemosa* (Black cohosh) for Cancer (15/14=1.07)
MAM: *Allium sativum* (Garlic) for Cancer (347/147=2.36)
MAM: *Ananas comosus* (Pineapple) for Cancer (73/79=0.92)
MAM: *Arctium lappa* (Burdock) for Cancer (98/61=1.61)
MAM: *Astragalus membranaceus* (Huang qi) for Cancer (110/26=4.23)
MAM: *Camellia sinensis* (Green Tea) for Cancer (483/457=1.06)
MAM: *Curcuma longa* (Turmeric) for Cancer (213/66=3.28)
MAM: *Eleutherococcus senticosus* (Eleuthero) for Cancer (163/43=3.79)
MAM: *Glycine max* (Soybean) for Cancer (483/457=1.06
MAM: *Nasturtium officinale* (Watercress) for Cancer (3/5=0.6)
MAM: *Rheum palmatum* (Chinese Rhubarb) for Cancer (85/21=4.05)
MAM: *Rumex acetosella* (Sheep sorrel) for Cancer (11/27=0.41)
MAM: *Smilax sarsaparilla* (Sarsparilla) for Cancer (0/13=0)
MAM: *Tanacetum parthenium* (Feverfew) for Cancer (88/19=4.63)
MAM: *Ulmus rubra* (Slippery Elm) for Cancer (4/17=0.24)
MAM: *Uncaria tomentosa* (Cat's Claw) for Cancer (79/31=2.55)



The number on the right hand side of the "/" is the number of cancer affecting aspects of the herb being evaluated.

See Appendix II for detailed presentation of the MAM's for DCO herbs, such as the following one for Turmeric, presented as an example. (Turmeric, one of the 16 DCO herbs, would certainly be in my meals were I subject to cancer, and I am genetically targeted for colon cancer. Turmeric's curcumin is probably better than Celebrex, which like other synthetic COX-2-I's was once touted off-label for the prevention of colon cancer. There are 66 indications of Turmeric affecting cancer in this MAM. Some are bolded.)

MAM: *Curcuma longa* (Turmeric) for Cancer (213/66=3.28)

5-Alpha-Reductase-Inhibitor: curcumin
AntiEBV: curcumin
AntiHIV: caffeic-acid, curcumin, quercetin
AntiX-Radiation: curdione
Antiadenomacarcinogenic: curcumin
Antiadenomic: limonene
Antiaflatoxin: bis-demethoxycurcumin, curcumin, demethoxycurcumin, quercetin, tetrahydrocurcumin
Antiaggregant: caffeic-acid, curcumin, eugenol, quercetin, salicylates
Antiaging: caffeic-acid, quercetin
Antiangiogenic: bis-desmethoxycurcumin, curcumin, demethoxycurcumin, quercetin
Antiarachidonate: curcumin, eugenol
Anticancer: alpha-terpineol, ar-turmerone, beta-turmerone, caffeic-acid, curcumenol, curcumin, curcuminoids, limonene, terpineol, vanillic-acid
Anticancer (Breast): curcumin
Anticancer (Cervix): curcumol, curdione
Anticancer (Colon): curcumin
Anticancer (Duodenum): curcumin
Anticancer (Mammary): curcumin
Anticancer (Skin): curcumin
Anticancer (Stomach): curcumin
Anticarcinogenic: caffeic-acid, curcumin
Antiestrogenic: eugenol, quercetin
Antifibrosarcomic: quercetin
Antihepatotoxic: caffeic-acid, p-coumaric-acid, protocatechuic-acid, quercetin

Antiinflammatory: 1,8-cineole, alpha-curcumene, alpha-pinene, alpha-terpineol, ar-turmerone, azulene, beta-pinene, beta-turmerone, bis-(4-hydroxy-cinnamoyl)-methane, bis-desmethoxycurcumin, borneol, caffeic-acid, caryophyllene, cinnamic-acid, curcumin, curcuminoids, dehydrocurdione, demethoxycurcumin, epi-procurcumenol, eugenol, feruloyl-4-hydroxycinnamoyl-methane, germacrone, limonene, linalool, procurcumenol, protocatechuic-acid, quercetin, salicylates, sodium-curcumate, tetrahydrocurcumin, triethylcurcumin, vanillic-acid
Antileukemic: 2-hydroxy-methyl-anthraquinone, caffeic-acid, curcumin, linalool, p-coumaric-acid, protocatechuic-acid, quercetin, vanillic-acid
Antileukotriene: caffeic-acid, curcumin, curcuminoids, quercetin
Antilipoperoxidant: bis-demethoxycurcumin, curcumin, demethoxycurcumin, quercetin
Antilymphomic: curcumin, limonene, linalool
Antimelanomic: curcumin, quercetin
Antimetastatic: curcumin, quercetin
Antimutagenic: bis-demethoxycurcumin, caffeic-acid, cinnamic-acid, curcumin, demethoxycurcumin, eugenol, limonene, linalool, protocatechuic-acid, quercetin, turmerin
Antinitrosaminic: alpha-terpinene, caffeic-acid, curcumin, p-coumaric-acid, quercetin, terpinolene
Antioxidant: bis-demethoxycurcumin, caffeic-acid, campesterol, camphene, curcumin, dehydrocurdione, eugenol, gamma-terpinene, p-coumaric-acid, protocatechuic-acid, quercetin, terpinolene, tetrahydrocurcumin, turmerin, turmeronol-a, turmeronol-b, vanillic-acid
Antiperoxidant: caffeic-acid, curcumin, p-coumaric-acid, protocatechuic-acid, quercetin, vanillic-acid
Antiproliferant: alpha-terpineol, ar-turmerone, caffeic-acid, caryophyllene, curcumin, quercetin, terpineol
Antiprostaglandin: caffeic-acid, curcumin, curcuminoids, eugenol
Antisarcomic: curcumol, curdione
Antistress: germacrone
Antithromboxane: curcumin, eugenol
Antitumor: alpha-curcumene, ar-turmerone, caffeic-acid, caryophyllene, curcumenol, curcumin, curcuminoids, curdione, eugenol, limonene, p-coumaric-acid, quercetin, vanillic-acid
Antitumor-Promoter: bis-demethoxycurcumin, caffeic-acid, curcumin, demethoxycurcumin, quercetin, tetrahydrocurcumin, vanillic-acid
Antiviral: alpha-pinene, beta-bisabolene, caffeic-acid, curcumin, eugenol, isoborneol, limonene, linalool, p-cymene, protocatechuic-acid, quercetin
Anxiolytic: caffeic-acid
Apoptotic: curcumin, limonene, protocatechuic-acid, quercetin
COX-2-Inhibitor: ar-turmerone, beta-turmerone, caffeic-acid, curcumin, eugenol, quercetin
Cancer-Preventive: alpha-pinene, caffeic-acid, camphor, cinnamic-acid, curcumin, eugenol, limonene, linalool, p-coumaric-acid, quercetin, vanillic-acid
Chemopreventive: caffeic-acid, curcumin, limonene, p-coumaric-acid, protocatechuic-acid

Cyclooxygenase-Inhibitor: curcumin, quercetin
Cytochrome-P450-Inducer: 1,8-cineole
Cytoprotective: caffeic-acid
Cytotoxic: 2-hydroxy-methyl-anthraquinone, caffeic-acid, curcumin, curcuminoids, di-p-coumaroyl-methane, diferuloyl-methane, eugenol, feruloyl-p-coumaroyl-methane, linalool, p-coumaric-acid, quercetin
Fibrinolytic: curcumin
GST-Inducer: limonene
Glutathionigenic: curcumin
Hepatoprotective: borneol, caffeic-acid, curcumin, di-p-coumaroyl-methane, eugenol, p-coumaroyl-feruloyl-methane, quercetin
Hepatotonic: 1,8-cineole, turmerone
Hypocholesterolemic: campesterol, curcumin, phytosterols
Immunostimulant: caffeic-acid, curcumin, protocatechuic-acid, ukonan-a
Lipoxygenase-Inhibitor: caffeic-acid, cinnamic-acid, p-coumaric-acid, quercetin
MDR-Inhibitor: curcumin
Mast-Cell-Stabilizer: quercetin
Ornithine-Decarboxylase-Inhibitor: caffeic-acid, curcumin, limonene, quercetin
P450-Inducer: 1,8-cineole, limonene, quercetin
PTK-Inhibitor: curcumin, quercetin
Prostaglandigenic: caffeic-acid, p-coumaric-acid, protocatechuic-acid
Protease-Inhibitor: curcumin
Protein-Kinase-C-Inhibitor: curcumin, quercetin
Protein-Kinase-Inhibitor: curcumin
Pulmonoprotective: curcumin
Sunscreen: caffeic-acid
Topoisomerase-II-Inhibitor: bis-demethoxycurcumin, curcumin, demethoxycurcumin, quercetin
Tyrosine-Kinase-Inhibitor: quercetin

CORRECTED

EXHIBIT II

CANCER MAMs

Tanacetum parthenium (Feverfew) for Cancer (88/19=4.63)
Astragalus membranaceus (Huang qi; Yellow Root) for Cancer (110/26=4.23)
Rheum palmatum (Chinese Rhubarb) for Cancer (85/21=4.05)
Eleutherococcus senticosus (Eleuthero) for Cancer (163/43=3.79)
Curcuma longa (Turmeric) for Cancer (213/66=3.28)
Uncaria tomentosa (Cat's Claw) for Cancer (79/31=2.55)
Allium sativum (Garlic) for Cancer (347/147=2.36)
Arctium lappa (Burdock) for Cancer (98/61=1.61)
Cimicifuga racemosa (Black cohosh) for Cancer (15/14=1.07)
Camellia sinensis (Green Tea) for Cancer (483/453=1.07)
Glycine max (Soybean) for Cancer (483/457=1.06)
Ananas comosus (Pineapple) for Cancer (73/79=0.92)
Rumex acetosella (Sheep sorrel) for Cancer (11/27=0.41)
Ulmus rubra (Slippery Elm) for Cancer (4/17=0.24)
Nasturtium officinale (Watercress) for Cancer (3/5=0.6)
Smilax sarsaparilla (Sarsparilla) for Cancer (0/13=0)

MAM: *Actaea (Cimicifuga) racemosa* (Black cohosh) for Cancer (15/14=1.07)

AntiHIV: gallic-acid, tannic-acid
Antiangiogenic: gallic-acid
Anticancer: gallic-acid
Anticarcinomic: gallic-acid
Antihepatotoxic: gallic-acid
Antiinflammatory: gallic-acid, isoferulic-acid, salicylic-acid
Antimutagenic: gallic-acid, tannic-acid
Antinitrosaminic: gallic-acid, tannic-acid
Antioxidant: gallic-acid, isoferulic-acid, salicylic-acid, tannic-acid
Antiperoxidant: gallic-acid
Antitumor: gallic-acid, salicylic-acid
Antitumor-Promoter: gallic-acid
Antiviral: gallic-acid, tannic-acid
Apoptotic: gallic-acid
COX-2-Inhibitor: salicylic-acid
Cancer-Preventive: formononetin, gallic-acid, salicylic-acid
Cyclooxygenase-Inhibitor: gallic-acid, salicylic-acid
Cytotoxic: gallic-acid, tannic-acid
Hepatoprotective: gallic-acid
Hypocholesterolemic: formononetin
Immunostimulant: gallic-acid, tannic-acid

MAM: *Allium sativum* (Garlic) for Cancer (347/147=2.36)

5-Alpha-Reductase-Inhibitor: alpha-linolenic-acid
AntiEBV: chlorogenic-acid
AntiHIV: ajoene, allyl-alcohol, apigenin, caffeic-acid, chlorogenic-acid, diallyl-disulfide, lignin, myricetin, oleanolic-acid, quercetin
Antiaflatoxin: apigenin, kaempferol, quercetin
Antiaggregant: (-)-n-(1'-deoxy-1'-d-fructopyranosyl)-s-allyl-l-cysteine-sulfoxide, 2-vinyl-4h-1,3-dithiin, adenosine, ajoene, allicin, alliin, allyl-methyl-trisulfide, allyl-trisulfide, alpha-linolenic-acid, apigenin, caffeic-acid, cycloalliin, ferulic-acid, kaempferol, methyl-allyl-trisulfide, phytic-acid, quercetin, rutin, salicylates
Antiaging: apigenin, caffeic-acid, quercetin, s-allyl-l-cysteine
Antiangiogenic: apigenin, quercetin
Anticancer: allixin, caffeic-acid, kaempferol, lignin, phytic-acid, rutin, s-allyl-l-cysteine, s-allylmercaptocysteine, vanillic-acid
Anticancer (Cervix): trigonelline
Anticancer (Colon): chlorogenic-acid, diallyl-sulfide, ferulic-acid, s-allyl-l-cysteine
Anticancer (Forestomach): chlorogenic-acid, ferulic-acid
Anticancer (Liver): chlorogenic-acid, diallyl-sulfide, ferulic-acid, s-allyl-l-cysteine, trigonelline
Anticancer (Lung): apigenin
Anticancer (Pancreas): geraniol
Anticancer (Skin): chlorogenic-acid, ferulic-acid
Anticancer (Stomach): allyl-methyl-disulfide, allyl-methyl-trisulfide, diallyl-sulfide, diallyl-trisulfide
Anticarcinogenic: caffeic-acid, chlorogenic-acid, ferulic-acid
Anticarcinomic: oleanolic-acid
Anticytotoxic: glutathione
Antiestrogenic: apigenin, ferulic-acid, quercetin
Antifibrosarcomic: quercetin
Antihepatotoxic: alliin, caffeic-acid, chlorogenic-acid, ferulic-acid, oleanolic-acid, p-coumaric-acid, quercetin, rutin, s-allyl-l-cysteine, s-allylmercaptocysteine, sinapic-acid
Antiinflammatory: ajoene, allicin, alpha-linolenic-acid, apigenin, caffeic-acid, chlorogenic-acid, ferulic-acid, kaempferol, linalool, myricetin, oleanolic-acid, quercetin, quercetin-3-o-beta-d-glucoside, rutin, salicylates, salicylic-acid, vanillic-acid
Antileukemic: ajoene, allicin, apigenin, caffeic-acid, ferulic-acid, kaempferol, linalool, oleanolic-acid, p-coumaric-acid, quercetin, s-allylmercaptocysteine, vanillic-acid
Antileukotriene: ajoene, allicin, caffeic-acid, chlorogenic-acid, oleanolic-acid, quercetin
Antilipoperoxidant: quercetin
Antilymphomic: ajoene, allicin, linalool
Antimelanomic: apigenin, geraniol, quercetin, rutin, s-allyl-l-cysteine
Antimetastatic: ajoene, alpha-linolenic-acid, apigenin, quercetin, rutin
Antimutagenic: ajoene, allicin, allixin, apigenin, caffeic-acid, chlorogenic-acid, diallyl-sulfide, ferulic-acid, kaempferol, linalool, myricetin, p-hydroxy-benzoic-acid, quercetin, rutin, saponins
Antineoplastic: ferulic-acid
Antineuroblastomic: s-allyl-l-cysteine

Antinitrosaminic: caffeic-acid, chlorogenic-acid, ferulic-acid, lignin, p-coumaric-acid, quercetin
Antioxidant: allicin, alliin, allixin, allyl-mercaptan, apigenin, caffeic-acid, campesterol, chlorogenic-acid, diallyl-disulfide, diallyl-heptasulfide, diallyl-hexasulfide, diallyl-pentasulfide, diallyl-sulfide, diallyl-tetrasulfide, diallyl-trisulfide, ferulic-acid, glutathione, ionol, kaempferol, lignin, myricetin, oleanolic-acid, p-coumaric-acid, p-hydroxy-benzoic-acid, pentadecanoic-acid, phytic-acid, quercetin, rutin, s-allyl-cysteine-sulfoxide, s-allyl-l-cysteine, s-allylmercaptocysteine, salicylic-acid, sinapic-acid, taurine, vanillic-acid
Antiperoxidant: caffeic-acid, chlorogenic-acid, diallyl-pentasulfide, oleanolic-acid, p-coumaric-acid, quercetin, rutin, s-allyl-cysteine-sulfoxide, vanillic-acid
Antiproliferant: ajoene, allicin, apigenin, caffeic-acid, quercetin, rutin, s-allyl-l-cysteine, s-allylmercaptocysteine
Antiproliferative: diallyl-disulfide
Antipromoter: allixin
Antiprostaglandin: ajoene, allicin, caffeic-acid
Antisarcomic: allicin, alliin, oleanolic-acid
Antistress: apigenin
Antitumor: ajoene, allicin, alliin, allixin, apigenin, caffeic-acid, chlorogenic-acid, desgalactotigonin, diallyl-disulfide, diallyl-sulfide, ferulic-acid, geraniol, guanylate-cyclase-inhibitor, kaempferol, lignin, oleanolic-acid, p-coumaric-acid, phytic-acid, quercetin, rutin, salicylic-acid, vanillic-acid
Antitumor-Promoter: caffeic-acid, chlorogenic-acid, ferulic-acid, kaempferol, phloroglucinol, quercetin, rutin, vanillic-acid
Antiviral: ajoene, allicin, allyl-alcohol, apigenin, caffeic-acid, chlorogenic-acid, diallyl-disulfide, diallyl-trisulfide, ferulic-acid, kaempferol, lignin, linalool, myricetin, oleanolic-acid, quercetin, rutin
Anxiolytic: adenosine, apigenin, caffeic-acid
Apoptotic: ajoene, allicin, apigenin, diallyl-trisulfide, kaempferol, myricetin, quercetin, rutin, s-allylmercaptocysteine
Beta-Glucuronidase-Inhibitor: apigenin, oleanolic-acid
COX-2-Inhibitor: ajoene, apigenin, caffeic-acid, kaempferol, oleanolic-acid, quercetin, salicylic-acid
Cancer-Preventive: alpha-linolenic-acid, apigenin, caffeic-acid, chlorogenic-acid, citral, diallyl-disulfide, ferulic-acid, geraniol, glutathione, kaempferol, linalool, myricetin, oleanolic-acid, p-coumaric-acid, p-hydroxy-benzoic-acid, phloroglucinol, phytic-acid, prostaglandin-a-1, prostaglandin-e-1, quercetin, quercetin-3-o-beta-d-glucoside, rutin, salicylic-acid, sinapic-acid, taurine, vanillic-acid
Chemopreventive: allixin, caffeic-acid, chlorogenic-acid, p-coumaric-acid, rutin, s-allyl-l-cysteine
Cyclooxygenase-Inhibitor: ajoene, allicin, apigenin, kaempferol, oleanolic-acid, quercetin, salicylic-acid
Cytoprotective: caffeic-acid, rutin
Cytotoxic: ajoene, apigenin, caffeic-acid, kaempferol, linalool, p-coumaric-acid, quercetin
Fibrinolytic: cycloalliin
Hepatoprotective: alliin, caffeic-acid, chlorogenic-acid, ferulic-acid, kaempferol, oleanolic-acid, quercetin, rutin, s-allyl-l-cysteine, s-allylmercaptocysteine
Hyaluronidase-Inhibitor: apigenin

Hypocholesterolemic: 2-vinyl-4h-1,3-dithiin, adenosine, ajoene, allicin, alliin, campesterol, diallyl-disulfide, diallyl-sulfide, diallyl-trisulfide, inulin, lignin, methyl-ajoene, nicotinic-acid, phytic-acid, phytosterols, rutin, s-allyl-cysteine-sulfoxide, s-allyl-l-cysteine, s-methyl-l-cysteine-sulfoxide, taurine, trigonelline
Immunostimulant: allicin, alliin, alpha-linolenic-acid, caffeic-acid, chlorogenic-acid, diallyl-disulfide, ferulic-acid, inulin, s-allyl-l-cysteine
Interferonogenic: chlorogenic-acid
Leucocytogenic: oleanolic-acid
Lipoxygenase-Inhibitor: ajoene, allicin, caffeic-acid, chlorogenic-acid, kaempferol, myricetin, p-coumaric-acid, quercetin, rutin
Lymphocytogenic: alpha-linolenic-acid
Mast-Cell-Stabilizer: quercetin
Ornithine-Decarboxylase-Inhibitor: apigenin, caffeic-acid, chlorogenic-acid, ferulic-acid, quercetin
P450-Inducer: quercetin
PKC-Inhibitor: apigenin
PTK-Inhibitor: apigenin, quercetin
Prostaglandigenic: caffeic-acid, ferulic-acid, p-coumaric-acid, p-hydroxy-benzoic-acid
Protein-Kinase-C-Inhibitor: apigenin, quercetin
Sunscreen: apigenin, caffeic-acid, chlorogenic-acid, ferulic-acid, rutin
Topoisomerase-II-Inhibitor: apigenin, kaempferol, myricetin, quercetin, rutin
Tyrosine-Kinase-Inhibitor: myricetin, quercetin

MAM: *Ananas comosus* (Pineapple) for Cancer (73/79=0.92)

5-Alpha-Reductase-Inhibitor: alpha-linolenic-acid
AntiHIV: caffeic-acid, methanol
Antiaggregant: alpha-linolenic-acid, bromelain, caffeic-acid, ferulic-acid, salicylates, serotonin
Antiaging: caffeic-acid
Anticancer: alpha-terpineol, caffeic-acid, vanillin
Anticancer (Colon): ferulic-acid
Anticancer (Forestomach): ferulic-acid
Anticancer (Liver): ferulic-acid
Anticancer (Skin): ferulic-acid
Anticarcinogenic: caffeic-acid, ferulic-acid
Antiestrogenic: ferulic-acid
Antihepatotoxic: caffeic-acid, ferulic-acid, p-coumaric-acid, sinapic-acid
Antiinflammatory: alpha-linolenic-acid, alpha-terpineol, bromelain, caffeic-acid, ferulic-acid, linalool, salicylates
Antileukemic: bromelain, caffeic-acid, ferulic-acid, linalool, p-coumaric-acid
Antileukotriene: caffeic-acid
Antilymphomic: linalool
Antimetastatic: alpha-linolenic-acid, bromelain
Antimutagenic: caffeic-acid, ferulic-acid, linalool, vanillin
Antineoplastic: ferulic-acid
Antinitrosaminic: caffeic-acid, ferulic-acid, p-coumaric-acid

Antioxidant: caffeic-acid, campesterol, ferulic-acid, p-coumaric-acid, sinapic-acid, vanillin
Antioxidant Synergist: malic-acid
Antiperoxidant: caffeic-acid, p-coumaric-acid
Antiproliferant: alpha-terpineol, bromelain, caffeic-acid
Antiprostaglandin: bromelain, caffeic-acid
Antiradiation: bromelain
Antistress: gaba, gamma-aminobutyric-acid
Antitumor: bromelain, caffeic-acid, ferulic-acid, malic-acid, p-coumaric-acid, vanillin
Antitumor-Promoter: caffeic-acid, ferulic-acid, vanillin
Antiviral: caffeic-acid, cyanin, ferulic-acid, linalool, subaphyllin, vanillin
Anxiolytic: caffeic-acid, gaba, gamma-aminobutyric-acid
COX-2-Inhibitor: caffeic-acid
Cancer-Preventive: 5-hydroxytryptamine, alpha-linolenic-acid, caffeic-acid, ferulic-acid, linalool, p-coumaric-acid, sinapic-acid, vanillin
Chemopreventive: bromelain, caffeic-acid, p-coumaric-acid
Cytoprotective: caffeic-acid
Cytotoxic: caffeic-acid, linalool, p-coumaric-acid
Fibrinolytic: bromelain
Hepatoprotective: caffeic-acid, ferulic-acid
Hypocholesterolemic: campesterol, phytosterols
Immunostimulant: alpha-linolenic-acid, caffeic-acid, ferulic-acid
Lipoxygenase-Inhibitor: caffeic-acid, p-coumaric-acid
Lymphocytogenic: alpha-linolenic-acid
Ornithine-Decarboxylase-Inhibitor: caffeic-acid, ferulic-acid
Prostaglandigenic: caffeic-acid, ferulic-acid, p-coumaric-acid
Sunscreen: caffeic-acid, ferulic-acid, p-aminobenzoic-acid

MAM: *Arctium lappa* (Burdock) for Cancer (98/61=1.61)

AntiEBV: beta-eudesmol, chlorogenic-acid, lupeol
AntiHIV: (-)-arctigenin, arctigenin, caffeic-acid, chlorogenic-acid, lignin, polyphenols, trachelogenin
Antiaggregant: caffeic-acid
Antiaging: caffeic-acid
Antiangiogenic: lupeol, polyphenols
Anticancer: arctiin, benzaldehyde, caffeic-acid, lignin
Anticancer (Cervix): beta-elemene
Anticancer (Colon): chlorogenic-acid
Anticancer (Forestomach): chlorogenic-acid
Anticancer (Liver): chlorogenic-acid
Anticancer (Skin): chlorogenic-acid
Anticarcinogenic: caffeic-acid, chlorogenic-acid
Antigliomic: beta-elemene
Antihepatotoxic: caffeic-acid, chlorogenic-acid, polyphenols
Antiinflammatory: alpha-amyrin, alpha-amyrin-acetate, beta-amyrin, beta-amyrin-acetate, caffeic-acid, caryophyllene, chlorogenic-acid, lupeol, taraxasterol, taraxasterol-acetate

Antileukemic: arctigenin, caffeic-acid, daucosterol, matairesinol, trachelogenin
Antileukotriene: caffeic-acid, chlorogenic-acid
Antilymphomic: (-)-arctigenin, arctigenin, trachelogenin
Antimutagenic: benzaldehyde, beta-eudesmol, caffeic-acid, chlorogenic-acid, dehydrocostus-lactone, desmutagenic factor, polyphenols
Antinitrosaminic: caffeic-acid, chlorogenic-acid, lignin
Antioxidant: beta-amyrin-acetate, caffeic-acid, chlorogenic-acid, isochlorogenic-acid, lignin, lupeol, polyphenols
Antiperoxidant: caffeic-acid, chlorogenic-acid, lupeol
Antiproliferant: arctigenin, beta-elemene, caffeic-acid, caryophyllene
Antiprostaglandin: caffeic-acid, lupeol
Antistress: gaba
Antitopoisomerase-II: arctigenin, trachelogenin
Antitumor: alpha-amyrin, arctigenin, benzaldehyde, caffeic-acid, caryophyllene, chlorogenic-acid, daucosterol, lignin, lupeol, polyphenols
Antitumor-Promoter: caffeic-acid, chlorogenic-acid
Antiviral: arctigenin, atropine, caffeic-acid, chlorogenic-acid, lignin, lupeol, polyphenols
Anxiolytic: caffeic-acid, gaba
Apoptotic: beta-elemene
COX-2-Inhibitor: caffeic-acid
Cancer-Preventive: caffeic-acid, chlorogenic-acid, decan-1-al, isochlorogenic-acid, mucilage, phytol, polyphenols
Chemopreventive: caffeic-acid, chlorogenic-acid
Cyclooxygenase-Inhibitor: polyphenols
Cytoprotective: caffeic-acid
Cytotoxic: (-)-arctigenin, alpha-amyrin, arctigenin, caffeic-acid, lupeol
Hepatoprotective: alpha-amyrin, beta-amyrin, beta-eudesmol, caffeic-acid, chlorogenic-acid, polyphenols
Hypocholesterolemic: inulin, lignin, mucilage, phytosterols
Immunostimulant: arctigenin, benzaldehyde, caffeic-acid, chlorogenic-acid, inulin
Interferonogenic: chlorogenic-acid
Lipoxygenase-Inhibitor: caffeic-acid, chlorogenic-acid, polyphenols
Ornithine-Decarboxylase-Inhibitor: caffeic-acid, chlorogenic-acid, polyphenols
Phytohormonal: dehydrocostus-lactone
Prostaglandigenic: caffeic-acid
Sunscreen: caffeic-acid, chlorogenic-acid
Topoisomerase-Inhibitor: (-)-arctigenin, trachelogenin

MAM: *Astragalus membranaceus* (Huang qi) for Cancer (110/26=4.23)

AntiEBV: chlorogenic-acid
AntiHIV: caffeic-acid, chlorogenic-acid, quercetin
Antiaflatoxin: kaempferol, quercetin
Antiaggregant: caffeic-acid, coumarin, ferulic-acid, isoliquiritigenin, kaempferol, quercetin
Antiaging: caffeic-acid, quercetin
Antiandrogenic: coumarin

Antiangiogenic: quercetin
Anticancer: caffeic-acid, kaempferol
Anticancer (Colon): chlorogenic-acid, ferulic-acid
Anticancer (Forestomach): chlorogenic-acid, ferulic-acid
Anticancer (Kidney): coumarin
Anticancer (Liver): chlorogenic-acid, ferulic-acid
Anticancer (Prostate): coumarin
Anticancer (Skin): chlorogenic-acid, ferulic-acid
Anticarcinogenic: caffeic-acid, chlorogenic-acid, ferulic-acid
Anticervicaldysplasic: folic-acid
Antiestrogenic: ferulic-acid, quercetin
Antifibrosarcomic: quercetin
Antihepatotoxic: caffeic-acid, chlorogenic-acid, ferulic-acid, quercetin
Antiinflammatory: astramembranin-i, caffeic-acid, chlorogenic-acid, coumarin, ferulic-acid, isoferulic-acid, isorhamnetin, kaempferol, quercetin
Antileukemic: caffeic-acid, ferulic-acid, kaempferol, quercetin
Antileukotriene: caffeic-acid, chlorogenic-acid, quercetin
Antilipoperoxidant: quercetin
Antimelanomic: coumarin, quercetin
Antimetaplastic: folic-acid
Antimetastatic: coumarin, quercetin
Antimutagenic: caffeic-acid, chlorogenic-acid, coumarin, ferulic-acid, kaempferol, quercetin
Antineoplastic: ferulic-acid
Antinitrosaminic: caffeic-acid, chlorogenic-acid, ferulic-acid, quercetin
Antioxidant: caffeic-acid, chlorogenic-acid, ferulic-acid, isoferulic-acid, isorhamnetin, kaempferol, quercetin
Antiperoxidant: caffeic-acid, chlorogenic-acid, quercetin
Antipolyp: folic-acid
Antiproliferant: caffeic-acid, quercetin
Antiprostaglandin: caffeic-acid
Antistress: gaba
Antitumor: caffeic-acid, canavanine, chlorogenic-acid, coumarin, ferulic-acid, kaempferol, quercetin
Antitumor-Promoter: caffeic-acid, chlorogenic-acid, ferulic-acid, kaempferol, quercetin
Antiviral: caffeic-acid, canavanine, chlorogenic-acid, ferulic-acid, kaempferol, quercetin
Anxiolytic: caffeic-acid, gaba
Apoptotic: isoliquiritigenin, kaempferol, quercetin
COX-2-Inhibitor: caffeic-acid, kaempferol, quercetin
Cancer-Preventive: caffeic-acid, chlorogenic-acid, coumarin, ferulic-acid, folic-acid, formononetin, isoliquiritigenin, isorhamnetin, kaempferol, quercetin
Chemopreventive: caffeic-acid, chlorogenic-acid, coumarin
Cyclooxygenase-Inhibitor: isoliquiritigenin, kaempferol, quercetin
Cytoprotective: caffeic-acid
Cytotoxic: caffeic-acid, canavanine, kaempferol, quercetin
Hepatoprotective: betaine, caffeic-acid, chlorogenic-acid, ferulic-acid, isorhamnetin, kaempferol, quercetin

Hypocholesterolemic: formononetin
Immunostimulant: caffeic-acid, chlorogenic-acid, coumarin, ferulic-acid, folic-acid
Interferonogenic: chlorogenic-acid
Lipoxygenase-Inhibitor: caffeic-acid, chlorogenic-acid, isoliquiritigenin, kaempferol, quercetin
Lymphocytogenic: coumarin
Lymphokinetic: coumarin
Mast-Cell-Stabilizer: quercetin
Mitogenic: canavanine
Ornithine-Decarboxylase-Inhibitor: caffeic-acid, chlorogenic-acid, ferulic-acid, quercetin
P450-Inducer: quercetin
PTK-Inhibitor: quercetin
Prostaglandigenic: caffeic-acid, ferulic-acid
Protein-Kinase-C-Inhibitor: quercetin
Sunscreen: caffeic-acid, chlorogenic-acid, ferulic-acid
Topoisomerase-II-Inhibitor: kaempferol, quercetin
Tyrosine-Kinase-Inhibitor: isoliquiritigenin, quercetin
cAMP-genic: astramembranin-i

MAM: *Camellia sinensis* (Green Tea) for Cancer (483/453=1.07)

AntiEBV: (-)-epicatechin, chlorogenic-acid, epicatechin, geranial, lupeol
AntiHIV: (+)-catechin, (-)-epicatechin, (-)-epicatechin-3-o-gallate, apigenin, caffeic-acid, chlorogenic-acid, epicatechin, gallic-acid, lignin, myricetin, naringenin, opcs, polyphenols, quercetin, tannic-acid
Antiadenomic: farnesol, limonene
Antiaflatoxin: apigenin, kaempferol, naringenin, quercetin
Antiaggregant: (+)-catechin, (-)-epicatechin, (-)-epigallocatechin-gallate, apigenin, caffeic-acid, epicatechin, eugenol, kaempferol, ligustrazine, menthol, naringenin, quercetin, rutin, safrole, salicylates, tetramethyl-pyrazine, thymol
Antiaging: apigenin, caffeic-acid, hyperoside, quercetin
Antiangiogenic: (-)-epigallocatechin-3-gallate, (-)-epigallocatechin-gallate, apigenin, epigallocatechin-gallate, gallic-acid, lupeol, polyphenols, quercetin
Antiarachidonate: eugenol
Anticancer: (-)-epigallocatechin-gallate, alpha-terpineol, benzaldehyde, caffeic-acid, gallic-acid, hyperoside, isoquercitrin, kaempferol, lignin, limonene, naringenin, rutin
Anticancer (Bladder): lycopene
Anticancer (Breast): lutein, lycopene, zeaxanthin
Anticancer (Cervix): lycopene
Anticancer (Colon): chlorogenic-acid
Anticancer (Forestomach): chlorogenic-acid
Anticancer (Liver): chlorogenic-acid
Anticancer (Lung): apigenin
Anticancer (Pancreas): farnesol, geraniol
Anticancer (Prostate): lycopene
Anticancer (Skin): chlorogenic-acid
Anticarcinogenic: (-)-epigallocatechin, caffeic-acid, caffeine, chlorogenic-acid, theaflavin

Anticarcinomic: gallic-acid
Antiestrogenic: apigenin, eugenol, naringenin, quercetin
Antifibrosarcomic: quercetin
Antihepatotoxic: (-)-epigallocatechin-gallate, caffeic-acid, chlorogenic-acid, epicatechin-gallate, gallic-acid, hyperoside, naringenin, pedunculagin, polyphenols, procyanidin-b-2-3'-o-gallate, procyanidin-b-2-3,3'-di-o-gallate, quercetin, quercitrin, rutin
Antiinflammatory: (+)-catechin, (-)-epicatechin, allantoin, alpha-amyrin, alpha-pinene, alpha-spinasterol, alpha-terpineol, apigenin, beta-amyrin, beta-damascenone, caffeic-acid, carvacrol, chlorogenic-acid, cinnamic-acid, epicatechin, eugenol, gallic-acid, hyperoside, isoquercitrin, kaempferitrin, kaempferol, limonene, linalool, lupeol, menthol, methyl-salicylate, myricetin, naringenin, neo-chlorogenic-acid, opcs, quercetin, quercetin-3-o-beta-d-glucoside, quercitrin, rutin, salicylates, salicylic-acid, thymol, umbelliferone, vitexin
Antileukemic: (-)-epicatechin, (-)-epigallocatechin-gallate, apigenin, astragalin, caffeic-acid, epicatechin, farnesol, kaempferol, linalool, naringenin, quercetin
Antileukotriene: (-)-epicatechin, caffeic-acid, chlorogenic-acid, quercetin
Antilipoperoxidant: (-)-epicatechin, epicatechin, quercetin
Antilymphomic: limonene, linalool
Antimelanomic: apigenin, beta-ionone, carvacrol, farnesol, geraniol, quercetin, rutin, thymol
Antimetastatic: apigenin, quercetin, rutin, tetramethyl-pyrazine
Antimutagenic: (+)-catechin, (+)-gallocatechin, (-)-epicatechin, (-)-epicatechin-gallate, (-)-epigallocatechin, (-)-epigallocatechin-gallate, apigenin, benzaldehyde, caffeic-acid, chlorogenic-acid, cinnamic-acid, cryptoxanthin, epicatechin, epicatechin-gallate, epigallocatechin, eugenol, gallic-acid, kaempferol, limonene, linalool, myrcene, myricetin, naringenin, o-cresol, p-cresol, pedunculagin, polyphenols, quercetin, quercitrin, rutin, tannic-acid, umbelliferone
Antinitrosaminic: caffeic-acid, chlorogenic-acid, gallic-acid, lignin, myrcene, quercetin, tannic-acid
Antioxidant: (+)-catechin, (+)-gallocatechin, (-)-epicatechin, (-)-epicatechin-3-o-gallate, (-)-epigallocatechin, (-)-epigallocatechin-3-o-gallate, (-)-epigallocatechin-gallate, 4-terpineol, allantoin, apigenin, caffeic-acid, caffeine, campesterol, carvacrol, chlorogenic-acid, epicatechin, epicatechin-3-o-gallate, epicatechin-gallate, epigallocatechin, epigallocatechin-3-o-gallate, eugenol, gallic-acid, hyperoside, isoquercitrin, isovitexin, kaempferol, lignin, lupeol, lutein, lycopene, methyl-salicylate, myrcene, myricetin, naringenin, opcs, pedunculagin, polyphenols, procyanidin-b-2-3'-o-gallate, procyanidin-b-2-3,3'-di-o-gallate, procyanidin-b-5-3,3'-di-o-gallate, quercetin, quercitrin, rutin, salicylic-acid, tannic-acid, theaflavin, thymol, vitexin
Antioxidant Synergist: malic-acid
Antiperoxidant: (+)-catechin, (-)-epicatechin, (-)-epigallocatechin-gallate, caffeic-acid, chlorogenic-acid, epicatechin, epicatechin-gallate, gallic-acid, lupeol, pedunculagin, procyanidin-b-2-3'-o-gallate, quercetin, rutin
Antiperoxidative: naringenin
Antiproliferant: alpha-terpineol, apigenin, caffeic-acid, lutein, quercetin, rutin
Antiprostaglandin: (+)-catechin, caffeic-acid, carvacrol, eugenol, lupeol, umbelliferone
Antistress: apigenin
Antithromboxane: eugenol, theanine
Antitumor: (-)-epigallocatechin-gallate, alpha-amyrin, apigenin, benzaldehyde, beta-ionone, caffeic-acid, caffeine, chlorogenic-acid, epigallocatechin-gallate, eugenol, gallic-acid, geraniol,

isoquercitrin, kaempferol, lignin, limonene, lupeol, lycopene, malic-acid, naringenin, polyphenols, quercetin, quercitrin, rutin, salicylic-acid
Antitumor-Promoter: caffeic-acid, chlorogenic-acid, gallic-acid, isoquercitrin, kaempferol, naringenin, quercetin, rutin
Antiviral: (-)-epicatechin, (-)-epicatechin-3-o-gallate, (-)-epigallocatechin-gallate, adenine, alpha-pinene, apigenin, caffeic-acid, caffeine, chlorogenic-acid, dammaradienol, epicatechin, eugenol, gallic-acid, geranial, hyperoside, kaempferol, lignin, limonene, linalool, lupeol, myricetin, naringenin, opcs, polyphenols, quercetin, quercimeritrin, quercitrin, rutin, tannic-acid, theaflavin, theophylline
Anxiolytic: apigenin, caffeic-acid
Apoptotic: (-)-epigallocatechin-3-o-gallate, (-)-epigallocatechin-gallate, apigenin, caffeine, farnesol, gallic-acid, kaempferol, limonene, myricetin, quercetin, rutin
Beta-Glucuronidase-Inhibitor: apigenin
COX-2-Inhibitor: (+)-catechin, apigenin, caffeic-acid, eugenol, kaempferol, quercetin, salicylic-acid
Cancer-Preventive: (+)-catechin, (-)-epicatechin, alpha-pinene, apigenin, aromadendrin, beta-ionone, caffeic-acid, caffeine, chlorogenic-acid, cinnamic-acid, epicatechin, epicatechin-gallate, eugenol, gallic-acid, geraniol, hyperoside, indole, isoquercitrin, isovitexin, jasmone, kaempferol, limonene, linalool, lycopene, methyl-salicylate, myricetin, naringenin, o-cresol, opcs, p-cresol, polyphenols, quercetin, quercetin-3-o-beta-d-glucoside, quercitrin, rutin, safrole, salicylic-acid, umbelliferone, vitexin
Chemopreventive: caffeic-acid, chlorogenic-acid, limonene, myrcene, rutin
Cyclooxygenase-Inhibitor: (+)-catechin, (-)-epiafzelechin, (-)-epigallocatechin-gallate, apigenin, carvacrol, gallic-acid, kaempferol, polyphenols, quercetin, salicylic-acid, thymol
Cytochrome-P450-Inducer: beta-ionone, delta-cadinene, safrole
Cytoprotective: caffeic-acid, rutin
Cytotoxic: (+)-catechin, (-)-epicatechin, (-)-epicatechin-3-o-gallate, (-)-epigallocatechin-gallate, alpha-amyrin, apigenin, caffeic-acid, eugenol, gallic-acid, kaempferol, linalool, lupeol, quercetin, tannic-acid
DNA-Binder: safrole
GST-Inducer: limonene
Hepatoprotective: (+)-catechin, (-)-epigallocatechin-gallate, alpha-amyrin, beta-amyrin, caffeic-acid, chlorogenic-acid, eugenol, gallic-acid, hyperoside, kaempferol, naringenin, polyphenols, quercetin, rutin, zeaxanthin
Hepatotonic: quercitrin
Hyaluronidase-Inhibitor: apigenin, opcs
Hypocholesterolemic: (-)-epicatechin, (-)-epigallocatechin-gallate, beta-ionone, campesterol, epicatechin, lignin, lycopene, nicotinic-acid, phytosterols, rutin, theanine
Immunostimulant: (+)-catechin, (-)-epicatechin, (-)-epigallocatechin-gallate, allantoin, astragalin, benzaldehyde, caffeic-acid, chlorogenic-acid, epicatechin-gallate, gallic-acid, tannic-acid, theaflavin-digallate
Interferonogenic: chlorogenic-acid
Lipoxygenase-Inhibitor: (-)-epicatechin, (-)-epigallocatechin, (-)-epigallocatechin-gallate, caffeic-acid, chlorogenic-acid, cinnamic-acid, epicatechin, epicatechin-gallate, epigallocatechin, kaempferol, myricetin, polyphenols, quercetin, rutin, theaflavin, theaflavin-digallate, theaflavin-monogallate-b, umbelliferone

Mast-Cell-Stabilizer: quercetin
Mitogen: (-)-epigallocatechin-gallate, epicatechin-gallate, theaflavin
Nephroprotective: (-)-epicatechin-3-o-gallate, (-)-epigallocatechin-3-o-gallate
Ornithine-Decarboxylase-Inhibitor: apigenin, caffeic-acid, chlorogenic-acid, limonene, polyphenols, quercetin
P450-Inducer: beta-ionone, delta-cadinene, limonene, quercetin
PKC-Inhibitor: apigenin
PTK-Inhibitor: (-)-epigallocatechin-gallate, apigenin, quercetin
Phytohormonal: brassinolide
Prostaglandigenic: caffeic-acid
Protein-Kinase-C-Inhibitor: (-)-epigallocatechin-gallate, apigenin, quercetin
Reverse-Transcriptase-Inhibitor: (-)-epicatechin, (-)-epigallocatechin-gallate
Sunscreen: allantoin, apigenin, caffeic-acid, chlorogenic-acid, opcs, rutin, umbelliferone
Topoisomerase-II-Inhibitor: apigenin, caffeine, isoquercitrin, kaempferol, myricetin, pedunculagin, quercetin, rutin, strictinin
Tyrosine-Kinase-Inhibitor: myricetin, quercetin
Vitamin-A-Activity: cryptoxanthin

MAM: *Curcuma longa* (Turmeric) for Cancer (213/66=3.28)

5-Alpha-Reductase-Inhibitor: curcumin
AntiEBV: curcumin
AntiHIV: caffeic-acid, curcumin, quercetin
AntiX-Radiation: curdione
Antiadenomacarcinogenic: curcumin
Antiadenomic: limonene
Antiaflatoxin: bis-demethoxycurcumin, curcumin, demethoxycurcumin, quercetin, tetrahydrocurcumin
Antiaggregant: caffeic-acid, curcumin, eugenol, quercetin, salicylates
Antiaging: caffeic-acid, quercetin
Antiangiogenic: bis-desmethoxycurcumin, curcumin, demethoxycurcumin, quercetin
Antiarachidonate: curcumin, eugenol
Anticancer: alpha-terpineol, ar-turmerone, beta-turmerone, caffeic-acid, curcumenol, curcumin, curcuminoids, limonene, terpineol, vanillic-acid
Anticancer (Breast): curcumin
Anticancer (Cervix): curcumol, curdione
Anticancer (Colon): curcumin
Anticancer (Duodenum): curcumin
Anticancer (Mammary): curcumin
Anticancer (Skin): curcumin
Anticancer (Stomach): curcumin
Anticarcinogenic: caffeic-acid, curcumin
Antiestrogenic: eugenol, quercetin
Antifibrosarcomic: quercetin
Antihepatotoxic: caffeic-acid, p-coumaric-acid, protocatechuic-acid, quercetin
Antiinflammatory: 1,8-cineole, alpha-curcumene, alpha-pinene, alpha-terpineol, ar-turmerone,

azulene, beta-pinene, beta-turmerone, bis-(4-hydroxy-cinnamoyl)-methane, bis-desmethoxycurcumin, borneol, caffeic-acid, caryophyllene, cinnamic-acid, curcumin, curcuminoids, dehydrocurdione, demethoxycurcumin, epi-procurcumenol, eugenol, feruloyl-4-hydroxycinnamoyl-methane, germacrone, limonene, linalool, procurcumenol, protocatechuic-acid, quercetin, salicylates, sodium-curcumate, tetrahydrocurcumin, triethylcurcumin, vanillic-acid

Antileukemic: 2-hydroxy-methyl-anthraquinone, caffeic-acid, curcumin, linalool, p-coumaric-acid, protocatechuic-acid, quercetin, vanillic-acid

Antileukotriene: caffeic-acid, curcumin, curcuminoids, quercetin

Antilipoperoxidant: bis-demethoxycurcumin, curcumin, demethoxycurcumin, quercetin

Antilymphomic: curcumin, limonene, linalool

Antimelanomic: curcumin, quercetin

Antimetastatic: curcumin, quercetin

Antimutagenic: bis-demethoxycurcumin, caffeic-acid, cinnamic-acid, curcumin, demethoxycurcumin, eugenol, limonene, linalool, protocatechuic-acid, quercetin, turmerin

Antinitrosaminic: alpha-terpinene, caffeic-acid, curcumin, p-coumaric-acid, quercetin, terpinolene

Antioxidant: bis-demethoxycurcumin, caffeic-acid, campesterol, camphene, curcumin, dehydrocurdione, eugenol, gamma-terpinene, p-coumaric-acid, protocatechuic-acid, quercetin, terpinolene, tetrahydrocurcumin, turmerin, turmeronol-a, turmeronol-b, vanillic-acid

Antiperoxidant: caffeic-acid, curcumin, p-coumaric-acid, protocatechuic-acid, quercetin, vanillic-acid

Antiproliferant: alpha-terpineol, ar-turmerone, caffeic-acid, caryophyllene, curcumin, quercetin, terpineol

Antiprostaglandin: caffeic-acid, curcumin, curcuminoids, eugenol

Antisarcomic: curcumol, curdione

Antistress: germacrone

Antithromboxane: curcumin, eugenol

Antitumor: alpha-curcumene, ar-turmerone, caffeic-acid, caryophyllene, curcumenol, curcumin, curcuminoids, curdione, eugenol, limonene, p-coumaric-acid, quercetin, vanillic-acid

Antitumor-Promoter: bis-demethoxycurcumin, caffeic-acid, curcumin, demethoxycurcumin, quercetin, tetrahydrocurcumin, vanillic-acid

Antiviral: alpha-pinene, beta-bisabolene, caffeic-acid, curcumin, eugenol, isoborneol, limonene, linalool, p-cymene, protocatechuic-acid, quercetin

Anxiolytic: caffeic-acid

Apoptotic: curcumin, limonene, protocatechuic-acid, quercetin

COX-2-Inhibitor: ar-turmerone, beta-turmerone, caffeic-acid, curcumin, eugenol, quercetin

Cancer-Preventive: alpha-pinene, caffeic-acid, camphor, cinnamic-acid, curcumin, eugenol, limonene, linalool, p-coumaric-acid, quercetin, vanillic-acid

Chemopreventive: caffeic-acid, curcumin, limonene, p-coumaric-acid, protocatechuic-acid

Cyclooxygenase-Inhibitor: curcumin, quercetin

Cytochrome-P450-Inducer: 1,8-cineole

Cytoprotective: caffeic-acid

Cytotoxic: 2-hydroxy-methyl-anthraquinone, caffeic-acid, curcumin, curcuminoids, di-p-coumaroyl-methane, diferuloyl-methane, eugenol, feruloyl-p-coumaroyl-methane, linalool, p-coumaric-acid, quercetin

Fibrinolytic: curcumin
GST-Inducer: limonene
Glutathionigenic: curcumin
Hepatoprotective: borneol, caffeic-acid, curcumin, di-p-coumaroyl-methane, eugenol, p-coumaroyl-feruloyl-methane, quercetin
Hepatotonic: 1,8-cineole, turmerone
Hypocholesterolemic: campesterol, curcumin, phytosterols
Immunostimulant: caffeic-acid, curcumin, protocatechuic-acid, ukonan-a
Lipoxygenase-Inhibitor: caffeic-acid, cinnamic-acid, p-coumaric-acid, quercetin
MDR-Inhibitor: curcumin
Mast-Cell-Stabilizer: quercetin
Ornithine-Decarboxylase-Inhibitor: caffeic-acid, curcumin, limonene, quercetin
P450-Inducer: 1,8-cineole, limonene, quercetin
PTK-Inhibitor: curcumin, quercetin
Prostaglandigenic: caffeic-acid, p-coumaric-acid, protocatechuic-acid
Protease-Inhibitor: curcumin
Protein-Kinase-C-Inhibitor: curcumin, quercetin
Protein-Kinase-Inhibitor: curcumin
Pulmonoprotective: curcumin
Sunscreen: caffeic-acid
Topoisomerase-II-Inhibitor: bis-demethoxycurcumin, curcumin, demethoxycurcumin, quercetin
Tyrosine-Kinase-Inhibitor: quercetin

MAM: *Eleutherococcus senticosus* (Eleuthero) for Cancer (163/43=3.79)

Adaptogenic: syringin
AntiEBV: chlorogenic-acid
AntiHIV: betulinic-acid, caffeic-acid, chlorogenic-acid, oleanolic-acid
Antiaflatoxin: scopoletin
Antiaggregant: 3,4-dihydroxybenzoic-acid, caffeic-acid, coniferyl-alcohol, falcarindiol, ferulic-acid, vitamin-e
Antiaging: caffeic-acid, vitamin-e
Anticancer: betulinic-acid, caffeic-acid, vanillic-acid, vanillin
Anticancer (Colon): chlorogenic-acid, ferulic-acid
Anticancer (Forestomach): chlorogenic-acid, ferulic-acid
Anticancer (Liver): chlorogenic-acid, ferulic-acid
Anticancer (Skin): chlorogenic-acid, ferulic-acid
Anticarcinogenic: caffeic-acid, chlorogenic-acid, ferulic-acid
Anticarcinomic: betulinic-acid, oleanolic-acid
Antiestrogenic: ferulic-acid, lignans
Antihepatotoxic: caffeic-acid, chlorogenic-acid, ferulic-acid, oleanolic-acid, p-coumaric-acid, protocatechuic-acid, scopoletin
Antiinflammatory: amygdalin, betulinic-acid, caffeic-acid, chlorogenic-acid, coniferyl-aldehyde, ferulic-acid, friedelin, oleanolic-acid, protocatechuic-acid, scopoletin, vanillic-acid, vitamin-e
Antileukemic: betulinic-acid, caffeic-acid, daucosterol, ferulic-acid, isofraxidin, oleanolic-acid, p-coumaric-acid, protocatechuic-acid, sesamin, vanillic-acid, vitamin-e

Antileukotriene: caffeic-acid, chlorogenic-acid, oleanolic-acid, vitamin-e
Antimelanomic: betulinic-acid
Antimutagenic: caffeic-acid, chlorogenic-acid, falcarindiol, ferulic-acid, lignans, p-hydroxy-benzoic-acid, protocatechuic-acid, saponins, scopoletin, vanillin
Antineoplastic: ferulic-acid
Antinitrosaminic: caffeic-acid, chlorogenic-acid, ferulic-acid, p-coumaric-acid, vitamin-e
Antioxidant: caffeic-acid, chlorogenic-acid, coniferyl-alcohol, ferulic-acid, lignans, oleanolic-acid, p-coumaric-acid, p-hydroxy-benzoic-acid, protocatechuic-acid, scopoletin, sesamin, vanillic-acid, vanillin, vitamin-e
Antiperoxidant: caffeic-acid, chlorogenic-acid, oleanolic-acid, p-coumaric-acid, protocatechuic-acid, vanillic-acid
Antiproliferant: caffeic-acid, scopoletin, vitamin-e
Antiprostaglandin: caffeic-acid, coniferyl-alcohol, coniferyl-aldehyde, scopoletin
Antisarcomic: oleanolic-acid
Antistress: acanthoside-d, eleutheroside-c, eleutheroside-e, eleutherosides, syringaresinol-di-o-glucoside, syringin
Antitumor: betulinic-acid, caffeic-acid, chlorogenic-acid, daucosterol, ferulic-acid, lignans, oleanolic-acid, p-coumaric-acid, scopoletin, vanillic-acid, vanillin, vitamin-e
Antitumor-Promoter: caffeic-acid, chlorogenic-acid, ferulic-acid, vanillic-acid, vanillin
Antiviral: betulinic-acid, caffeic-acid, chlorogenic-acid, ferulic-acid, lignans, oleanolic-acid, protocatechuic-acid, vanillin
Anxiolytic: caffeic-acid
Apoptotic: betulinic-acid, protocatechuic-acid, scopoletin, vitamin-e
Beta-Glucuronidase-Inhibitor: oleanolic-acid
COX-2-Inhibitor: caffeic-acid, oleanolic-acid
Cancer-Preventive: amygdalin, caffeic-acid, chlorogenic-acid, ferulic-acid, isofraxidin, lignans, oleanolic-acid, p-coumaric-acid, p-hydroxy-benzoic-acid, scopoletin, vanillic-acid, vanillin, vitamin-e
Chemopreventive: caffeic-acid, chlorogenic-acid, p-coumaric-acid, protocatechuic-acid
Cyclooxygenase-Inhibitor: oleanolic-acid
Cytoprotective: caffeic-acid
Cytotoxic: betulinic-acid, caffeic-acid, falcarindiol, liriodendrin, p-coumaric-acid, scopoletin
Hepatoprotective: caffeic-acid, chlorogenic-acid, ferulic-acid, oleanolic-acid, scopoletin, sesamin, vitamin-e
Hypocholesterolemic: phytosterols, sesamin, vitamin-e
Immunostimulant: caffeic-acid, chlorogenic-acid, eleutherosides, ferulic-acid, protocatechuic-acid, syringin, vitamin-e
Interferonogenic: chlorogenic-acid
Leucocytogenic: oleanolic-acid
Lipoxygenase-Inhibitor: caffeic-acid, chlorogenic-acid, p-coumaric-acid, vitamin-e
Ornithine-Decarboxylase-Inhibitor: caffeic-acid, chlorogenic-acid, ferulic-acid, vitamin-e
Phytohormonal: scopoletin
Prostaglandigenic: caffeic-acid, ferulic-acid, p-coumaric-acid, p-hydroxy-benzoic-acid, protocatechuic-acid
Protein-Kinase-C-Inhibitor: vitamin-e
Sunscreen: caffeic-acid, chlorogenic-acid, ferulic-acid

Tocopherol-Synergist: sesamin

MAM: *Glycine max* (Soybean) for Cancer (483/457=1.06)

5-Alpha-Reductase-Inhibitor: alpha-linolenic-acid, biochanin-a
Alpha-Reductase-Inhibitor: biochanin-a, genistein
AntiEBV: chlorogenic-acid, lupeol
AntiHIV: (+)-catechin, caffeic-acid, chlorogenic-acid, gallic-acid, gossypol, lignin, methanol, naringenin, quercetin, tannic-acid
Antiaflatoxin: kaempferol, naringenin, quercetin
Antiaggregant: (+)-catechin, adenosine, alpha-linolenic-acid, caffeic-acid, ferulic-acid, genistein, isoliquiritigenin, kaempferol, naringenin, phytic-acid, pyridoxine, quercetin, rutin, salicylates, tetramethyl-pyrazine, vitamin-e
Antiaging: caffeic-acid, quercetin, vitamin-e
Antiangiogenic: ergosterol, gallic-acid, genistein, lupeol, quercetin
Anticancer: caffeic-acid, daidzein, gallic-acid, gamma-tocopherol, gossypol, inositol-hexaphosphate, isoquercitrin, kaempferol, lignin, naringenin, phytic-acid, rutin, vanillic-acid
Anticancer (Breast): genistein, lutein
Anticancer (Cervix): trigonelline
Anticancer (Colon): chlorogenic-acid, ferulic-acid
Anticancer (Forestomach): chlorogenic-acid, ferulic-acid
Anticancer (Liver): chlorogenic-acid, ferulic-acid, trigonelline
Anticancer (Skin): chlorogenic-acid, crocetin, ferulic-acid
Anticarcinogenic: biochanin-a, caffeic-acid, chlorogenic-acid, cis-aconitic-acid, ferulic-acid
Anticarcinomic: gallic-acid
Antiestrogenic: daidzein, ferulic-acid, genistein, gossypol, naringenin, quercetin
Antifibrosarcomic: quercetin
Antihepatocarcinogenic: fumaric-acid
Antihepatotoxic: caffeic-acid, chlorogenic-acid, ferulic-acid, gallic-acid, glucuronic-acid, naringenin, p-coumaric-acid, protocatechuic-acid, quercetin, quercitrin, rutin, sinapic-acid
Antiinflammatory: (+)-catechin, 24-methylene-cycloartanol, allantoin, alpha-amyrin, alpha-linolenic-acid, beta-amyrin, caffeic-acid, chlorogenic-acid, cycloartenol, daidzein, ferulic-acid, gallic-acid, gamma-tocopherol, genistein, gentisic-acid, isoferulic-acid, isoquercitrin, kaempferol, lupeol, naringenin, neo-chlorogenic-acid, protocatechuic-acid, quercetin, quercitrin, rutin, salicylates, salicylic-acid, taraxasterol, vanillic-acid, vitamin-e, vitexin
Antileukemic: astragalin, caffeic-acid, daidzein, ferulic-acid, genistein, kaempferol, naringenin, p-coumaric-acid, protocatechuic-acid, quercetin, vanillic-acid, vitamin-e
Antileukotriene: caffeic-acid, chlorogenic-acid, genistein, quercetin, vitamin-e
Antilipoperoxidant: quercetin
Antilymphomic: genistein
Antimelanomic: daidzein, genistein, inositol-hexaphosphate, quercetin, rutin
Antimetastatic: alpha-linolenic-acid, quercetin, rutin, tetramethyl-pyrazine
Antimicrobial: coumestrol, daidzein, genistein
Antimutagenic: (+)-catechin, biochanin-a, caffeic-acid, chlorogenic-acid, crocetin, daidzein,

ferulic-acid, fisetin, gallic-acid, genistein, kaempferol, naringenin, p-hydroxy-benzoic-acid, protocatechuic-acid, quercetin, quercitrin, rutin, saponins, tannic-acid
Antineoplastic: ferulic-acid
Antineuroblastomic: genistein
Antinitrosaminic: caffeic-acid, chlorogenic-acid, ferulic-acid, gallic-acid, lignin, p-coumaric-acid, quercetin, tannic-acid, vitamin-e
Antioxidant: (+)-catechin, 6"-o-acetyl-daidzin, 6"-o-acetyl-genistin, allantoin, caffeic-acid, campesterol, catalase, chlorogenic-acid, crocetin, daidzein, daidzin, delta-tocopherol, demethyltexasin, ferulic-acid, fisetin, fumaric-acid, gallic-acid, gamma-tocopherol, genistein, genistin, gentisic-acid, glycitein, gossypol, isoferulic-acid, isoquercitrin, kaempferol, lignin, lupeol, lutein, malonyldaidzin, malonylgenistin, naringenin, p-coumaric-acid, p-hydroxy-benzoic-acid, phytic-acid, protocatechuic-acid, quercetin, quercitrin, rutin, salicylic-acid, sinapic-acid, spermidine, spermine, squalene, tannic-acid, vanillic-acid, vitamin-e, vitexin
Antioxidant Synergist: malic-acid
Antiperoxidant: (+)-catechin, caffeic-acid, chlorogenic-acid, gallic-acid, lupeol, p-coumaric-acid, protocatechuic-acid, quercetin, rutin, vanillic-acid
Antiperoxidative: naringenin
Antiprolactin: pyridoxine
Antiproliferant: biochanin-a, caffeic-acid, gossypol, inositol-hexaphosphate, lutein, quercetin, rutin, vitamin-e
Antiproliferative: daidzein, genistein
Antiprostaglandin: (+)-catechin, caffeic-acid, gamma-tocopherol, lupeol
Antiradiation: pyridoxine
Antitumor: alpha-amyrin, caffeic-acid, canavanine, chlorogenic-acid, delta-tocopherol, ergosterol, ferulic-acid, fumaric-acid, gallic-acid, gamma-tocopherol, gossypol, isoquercitrin, kaempferol, lignin, lupeol, malic-acid, naringenin, p-coumaric-acid, phytic-acid, quercetin, quercitrin, rutin, salicylic-acid, squalene, vanillic-acid, vitamin-e
Antitumor-Promoter: caffeic-acid, chlorogenic-acid, crocetin, daidzein, ferulic-acid, gallic-acid, isoquercitrin, kaempferol, naringenin, quercetin, rutin, vanillic-acid
Antiviral: adenine, anthocyanin, caffeic-acid, canavanine, chlorogenic-acid, daidzein, dammaradienol, ergosterol, ferulic-acid, fisetin, gallic-acid, genistein, gentisic-acid, gossypol, kaempferol, lignin, lupeol, naringenin, protocatechuic-acid, quercetin, quercitrin, rutin, tannic-acid
Anxiolytic: adenosine, caffeic-acid
Apoptotic: biochanin-a, delta-tocopherol, gallic-acid, genistein, isoliquiritigenin, kaempferol, protocatechuic-acid, quercetin, rutin, vitamin-e
COX-2-Inhibitor: (+)-catechin, caffeic-acid, kaempferol, quercetin, salicylic-acid
Cancer-Preventive: (+)-catechin, 24-methylene-cycloartanol, 4-hydroxycinnamic-acid, alpha-linolenic-acid, biochanin-a, caffeic-acid, chlorogenic-acid, daidzein, daidzin, ferulic-acid, formononetin, gallic-acid, genistein, glycitein, indole-3-acetic-acid, isoliquiritigenin, isoquercitrin, kaempferol, lanosterol, naringenin, p-coumaric-acid, p-hydroxy-benzoic-acid, phytic-acid, quercetin, quercitrin, rutin, salicylic-acid, sinapic-acid, squalene, vanillic-acid, vitamin-e, vitexin, vitexin-2"-o-rhamnoside
Chemopreventive: biochanin-a, caffeic-acid, chlorogenic-acid, p-coumaric-acid, protocatechuic-acid, rutin, squalene

Cyclooxygenase-Inhibitor: (+)-catechin, fisetin, gallic-acid, gamma-tocopherol, isoliquiritigenin, kaempferol, quercetin, salicylic-acid
Cytoprotective: caffeic-acid, rutin
Cytotoxic: (+)-catechin, alpha-amyrin, caffeic-acid, canavanine, gallic-acid, genistein, gossypol, kaempferol, lupeol, p-coumaric-acid, quercetin, tannic-acid
Estrogen-Agonist: biochanin-a, daidzein, genistein
Hepatoprotective: (+)-catechin, alpha-amyrin, beta-amyrin, betaine, caffeic-acid, chlorogenic-acid, ferulic-acid, gallic-acid, kaempferol, naringenin, quercetin, rutin, vitamin-e
Hepatotonic: glycolic-acid, quercitrin
Hypocholesterolemic: 24-methylene-cycloartanol, adenosine, biochanin-a, campesterol, coumestrol, crocetin, cycloartenol, delta-tocopherol, formononetin, gamma-tocopherol, genistein, lignin, phytic-acid, phytosterols, rutin, trigonelline, vitamin-e
Immunostimulant: (+)-catechin, allantoin, alpha-linolenic-acid, arabinogalactan, astragalin, caffeic-acid, chlorogenic-acid, ferulic-acid, gallic-acid, genistein, gossypol, protocatechuic-acid, squalene, tannic-acid, vitamin-e
Interferonogenic: arabinogalactan, chlorogenic-acid, gossypol
Lipoxygenase-Inhibitor: caffeic-acid, chlorogenic-acid, fisetin, isoliquiritigenin, kaempferol, p-coumaric-acid, quercetin, rutin, squalene, vitamin-e
Lymphocytogenic: alpha-linolenic-acid
MDR-Inhibitor: genistein
Mast-Cell-Stabilizer: quercetin
Mitogenic: arabinogalactan, canavanine
Ornithine-Decarboxylase-Inhibitor: caffeic-acid, chlorogenic-acid, ferulic-acid, genistein, quercetin, vitamin-e
P450-Inducer: quercetin
PKC-Inhibitor: gamma-tocopherol
PTK-Inhibitor: genistein, quercetin
Phytohormonal: cadaverine
Prostaglandigenic: caffeic-acid, ferulic-acid, gossypol, p-coumaric-acid, p-hydroxy-benzoic-acid, protocatechuic-acid
Protein-Kinase-C-Inhibitor: quercetin, vitamin-e
Sunscreen: allantoin, caffeic-acid, chlorogenic-acid, ferulic-acid, rutin, squalene
Topoisomerase-II-Inhibitor: biochanin-a, daidzein, fisetin, genistein, gossypol, isoquercitrin, kaempferol, quercetin, rutin
Topoisomerase-II-Poison: genistein
Tyrosine-Kinase-Inhibitor: genistein, isoliquiritigenin, quercetin

MAM: *Nasturtium officinale* (Watercress) for Cancer (3/5=0.6)

Antiaggregant: rutin, salicylates
Anticancer: rutin
Antihepatotoxic: rutin
Antiinflammatory: rutin, salicylates
Antimelanomic: rutin
Antimetastatic: rutin
Antimutagenic: rutin
Antioxidant: rutin

Antiperoxidant: rutin
Antiproliferant: rutin
Antitumor: rutin
Antitumor-Promoter: rutin
Antiviral: rutin
Apoptotic: rutin
Cancer-Preventive: 2-phenylethyl-isothiocyanate, rutin
Chemopreventive: rutin
Cytoprotective: rutin
Hepatoprotective: rutin
Hypocholesterolemic: rutin
Lipoxygenase-Inhibitor: rutin
Sunscreen: rutin
Topoisomerase-II-Inhibitor: rutin

MAM: *Rheum palmatum* (Chinese Rhubarb) for Cancer (85/21=4.05)

5-Alpha-Reductase-Inhibitor: alizarin
Adaptogenic: paeonol
AntiEBV: beta-eudesmol
AntiHIV: (+)-catechin, gallic-acid
Antiaggregant: (+)-catechin, emodin, menthol, paeonol, safrole, tetramethyl-pyrazine
Antiangiogenic: emodin, gallic-acid
Anticancer: alpha-terpineol, benzaldehyde, gallic-acid
Anticancer (Cervix): beta-elemene
Anticarcinomic: gallic-acid, rhein
Antigliomic: beta-elemene
Antihepatotoxic: gallic-acid, quercitrin
Antiinflammatory: (+)-catechin, alpha-terpineol, anethole, cinnamic-acid, emodin, gallic-acid, hyperin, menthol, paeonol, quercitrin
Antileukemic: alizarin, aloe-emodin, emodin
Antilymphomic: emodin
Antimetastatic: tetramethyl-pyrazine
Antimutagenic: (+)-catechin, alizarin, benzaldehyde, beta-eudesmol, cinnamic-acid, emodin, gallic-acid, p-cresol, paeonol, quercitrin
Antineoplastic: emodin, rhein
Antinitrosaminic: gallic-acid
Antioxidant: (+)-catechin, 1,2,6-tri-o-galloyl-beta-d-glucose, alizarin, anethole, gallic-acid, hyperin, methyl-eugenol, pentadecanoic-acid, phenol, quercitrin, tridecanoic-acid
Antiperoxidant: (+)-catechin, gallic-acid
Antiproliferant: alpha-terpineol, beta-elemene
Antiprostaglandin: (+)-catechin
Antisarcomic: emodin
Antistress: paeonol
Antitumor: aloe-emodin, alpha-humulene, anethole, benzaldehyde, gallic-acid, quercitrin, rhein
Antitumor-Promoter: gallic-acid

Antiviral: aloe-emodin, ar-curcumene, emodin, gallic-acid, hyperin, p-cymene, phenol, quercitrin, rhein
Apoptotic: beta-elemene, gallic-acid
COX-2-Inhibitor: (+)-catechin
Cancer-Preventive: (+)-catechin, anethole, cinnamic-acid, gallic-acid, methyl-eugenol, p-cresol, phenol, quercitrin, safrole
Cyclooxygenase-Inhibitor: (+)-catechin, gallic-acid
Cytochrome-P450-Inducer: delta-cadinene, safrole
Cytotoxic: (+)-catechin, aloe-emodin, emodin, gallic-acid, rhein
DNA-Binder: safrole
Hepatoprotective: (+)-catechin, alizarin, beta-eudesmol, gallic-acid, hyperin
Hepatotonic: quercitrin
Immunostimulant: (+)-catechin, anethole, benzaldehyde, emodin, gallic-acid
Leucocytogenic: anethole, emodin
Lipoxygenase-Inhibitor: cinnamic-acid
Nephroprotective: anethole
P450-Inducer: delta-cadinene
PTK-Inhibitor: emodin
Topoisomerase-II-Inhibitor: 1,2,6-tri-o-galloyl-beta-d-glucose, aloe-emodin, chrysazin, emodin

MAM: *Rumex acetosella* (Sheep sorrel) for Cancer (11/27=0.41)

Antiaggregant: adenosine, emodin, rutin
Antiangiogenic: emodin
Anticancer: rutin
Antihepatotoxic: rutin
Antiinflammatory: emodin, hyperin, rutin
Antileukemic: emodin
Antilymphomic: emodin
Antimelanomic: rutin
Antimetastatic: rutin
Antimutagenic: emodin, rutin
Antineoplastic: emodin
Antioxidant: hyperin, rutin
Antiperoxidant: rutin
Antiproliferant: rutin
Antisarcomic: emodin
Antitumor: rutin
Antitumor-Promoter: rutin
Antiviral: emodin, hyperin, rutin
Anxiolytic: adenosine
Apoptotic: rutin
Cancer-Preventive: rutin
Chemopreventive: rutin
Cytoprotective: rutin
Cytotoxic: emodin

Hepatoprotective: hyperin, rutin
Hypocholesterolemic: adenosine, rutin
Immunostimulant: emodin
Leucocytogenic: emodin
Lipoxygenase-Inhibitor: rutin
PTK-Inhibitor: emodin
Phytohormonal: zeatin
Sunscreen: rutin
Topoisomerase-II-Inhibitor: emodin, rutin

MAM: *Smilax sarsaparilla* (Sarsparilla) for Cancer (0/13=0)

Anticarcinomic: parillin

MAM: *Tanacetum parthenium* (Feverfew) for Cancer (88/19=4.63)

Antiadenomic: limonene
Antiaggregant: 3-beta-hydroxyparthenolide, artecanin, canin, eugenol, melatonin, parthenolide, thymol
Antiangiogenic: costunolide
Antiarachidonate: eugenol
Anticancer: alpha-terpineol, benzaldehyde, limonene, parthenolide
Antiestrogenic: eugenol
Antiinflammatory: 1,8-cineole, alantolactone, alpha-pinene, alpha-terpineol, artecanin, beta-pinene, borneol, carvacrol, caryophyllene, caryophyllene-oxide, eugenol, limonene, linalool, parthenolide, santamarin, santamarine, thymol
Antileukemic: isofraxidin, linalool
Antilymphomic: limonene, linalool
Antimelanomic: carvacrol, thymol
Antimutagenic: benzaldehyde, costunolide, eugenol, limonene, linalool, myrcene
Antinitrosaminic: alpha-terpinene, myrcene, terpinolene
Antioxidant: alantolactone, camphene, carvacrol, eugenol, gamma-terpinene, luteolin-7-glucuronide, melatonin, myrcene, terpinen-4-ol, terpinolene, thymol
Antiproliferant: alpha-terpineol, caryophyllene
Antiprostaglandin: carvacrol, chrysanthenyl-acetate, eugenol, parthenolide
Antithromboxane: eugenol
Antitumor: alantolactone, alpha-humulene, benzaldehyde, canin, caryophyllene, caryophyllene-oxide, costunolide, eugenol, limonene, parthenolide, santamarin, santamarine
Antiviral: alpha-pinene, bornyl-acetate, eugenol, limonene, linalool, p-cymene
Anxiolytic: alantolactone
Apoptotic: limonene
COX-2-Inhibitor: eugenol, melatonin, parthenolide
Cancer-Preventive: alpha-pinene, camphor, eugenol, isofraxidin, limonene, linalool
Chemopreventive: limonene, myrcene
Cyclooxygenase-Inhibitor: carvacrol, melatonin, parthenolide, thymol
Cytochrome-P450-Inducer: 1,8-cineole, delta-cadinene

Cytotoxic: alantolactone, canin, eugenol, linalool, parthenolide, santamarin
GST-Inducer: limonene
Hepatoprotective: borneol, eugenol
Hepatotonic: 1,8-cineole
Hypocholesterolemic: cynaroside, melatonin
Immunostimulant: alantolactone, benzaldehyde, melatonin
Ornithine-Decarboxylase-Inhibitor: limonene
P450-Inducer: 1,8-cineole, delta-cadinene, limonene

MAM: *Ulmus rubra* (Slippery Elm) for Cancer (4/17=0.24)

Antiinflammatory: salicylic-acid
Antioxidant: campesterol, salicylic-acid
Antitumor: salicylic-acid
COX-2-Inhibitor: salicylic-acid
Cancer-Preventive: mucilage, salicylic-acid
Cyclooxygenase-Inhibitor: salicylic-acid
Hypocholesterolemic: campesterol, mucilage, phytosterols

MAM: *Uncaria tomentosa* (Cat's Claw) for Cancer (79/31=2.55)

AntiEBV: (-)-epicatechin, chlorogenic-acid, ursolic-acid
AntiHIV: (-)-epicatechin, chlorogenic-acid, oleanolic-acid, ursolic-acid
Antiaggregant: (-)-epicatechin, rhynchophylline, rutin
Anticancer: rutin, ursolic-acid
Anticancer (Colon): chlorogenic-acid, ursolic-acid
Anticancer (Forestomach): chlorogenic-acid
Anticancer (Liver): chlorogenic-acid
Anticancer (Skin): chlorogenic-acid
Anticarcinogenic: chlorogenic-acid
Anticarcinomic: oleanolic-acid, ursolic-acid
Antifibrosarcomic: ursolic-acid
Antihepatotoxic: chlorogenic-acid, oleanolic-acid, rutin, ursolic-acid
Antiinflammatory: (-)-epicatechin, chlorogenic-acid, oleanolic-acid, rutin, ursolic-acid
Antileukemic: (-)-epicatechin, isomitraphylline, isopteropodine, mitraphylline, oleanolic-acid, speciophylline, uncarine-f, ursolic-acid
Antileukotriene: (-)-epicatechin, chlorogenic-acid, oleanolic-acid
Antilipoperoxidant: (-)-epicatechin
Antilymphomic: ursolic-acid
Antimelanomic: rutin
Antimetastatic: rutin, ursolic-acid
Antimutagenic: (-)-epicatechin, chlorogenic-acid, rutin, ursolic-acid
Antinitrosaminic: chlorogenic-acid
Antioxidant: (-)-epicatechin, campesterol, chlorogenic-acid, isorhynchophylline, oleanolic-acid, rhynchophylline, rutin, ursolic-acid
Antiperoxidant: (-)-epicatechin, chlorogenic-acid, oleanolic-acid, rutin, ursolic-acid

Antiproliferant: rutin
Antiproliferative: ursolic-acid
Antisarcomic: oleanolic-acid
Antithromboxane: ursolic-acid
Antitumor: chlorogenic-acid, oleanolic-acid, pteropodine, rutin, ursolic-acid
Antitumor-Promoter: chlorogenic-acid, rutin, ursolic-acid
Antiviral: (-)-epicatechin, chlorogenic-acid, oleanolic-acid, rutin, ursolic-acid
Apoptotic: rutin
Beta-Glucuronidase-Inhibitor: oleanolic-acid, ursolic-acid
COX-2-Inhibitor: oleanolic-acid, ursolic-acid
Cancer-Preventive: (-)-epicatechin, chlorogenic-acid, oleanolic-acid, rutin, ursolic-acid
Chemopreventive: chlorogenic-acid, rutin
Cyclooxygenase-Inhibitor: oleanolic-acid, ursolic-acid
Cytoprotective: rutin
Cytotoxic: (-)-epicatechin, pteropodine, ursolic-acid
Hepatoprotective: chlorogenic-acid, oleanolic-acid, rutin, ursolic-acid
Hypocholesterolemic: (-)-epicatechin, campesterol, rutin
Immunostimulant: (-)-epicatechin, alloisopteropodine, allopteropodine, chlorogenic-acid, isomitraphylline, isopteropodine, isorhynchophylline, mitraphylline
Interferonogenic: chlorogenic-acid
Leucocytogenic: oleanolic-acid, ursolic-acid
Lipoxygenase-Inhibitor: (-)-epicatechin, chlorogenic-acid, rutin, ursolic-acid
Ornithine-Decarboxylase-Inhibitor: chlorogenic-acid, ursolic-acid
Protease-Inhibitor: ursolic-acid
Reverse-Transcriptase-Inhibitor: (-)-epicatechin
Sunscreen: chlorogenic-acid, rutin
Topoisomerase-II-Inhibitor: rutin

Exhibit
5

In the Matter of:

Daniel Chapter One, et al.

February 17, 2009
Sally Blake LaMont, N.D.

Condensed Transcript with Word Index

For The Record, Inc.
(301) 870-8025 - www.ftrinc.net - (800) 921-5555

FEDERAL TRADE COMMISSION
I N D E X

UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION

In the Matter of:)
DANIEL CHAPTER ONE, a corporation,)
and) Docket No. 9329
JAMES FEIJO, individually and as)
an officer of Daniel Chapter One)
----------)

Tuesday, February 17, 2009

Room 318
Federal Trade Commission
One Bowling Green
New York, New York 10004

The above-entitled matter came on for deposition, pursuant to notice, at 9:30 a.m.

APPEARANCES:

ON BEHALF OF THE FEDERAL TRADE COMMISSION:
THEODORE ZANG JR., ESQ.
Federal Trade Commission
Northeast Region
One Bowling Green - Suite 318
New York, New York 10004
(212) 607-2816
tzang@ftc.gov

ON BEHALF OF THE RESPONDENTS:
JAMES S. TURNER, ESQ.
CHRISTOPHER B. TURNER, ESQ.
BETSY E. LEHRFELD, ESQ. (p.m. session)
Swankin & Turner
1400 16th Street, N.W. - Suite 101
Washington, D.C. 20036
(202) 462-8800
jim@swankin-turner.com

P R O C E E D I N G S
- - - - -

Whereupon --
SALLY BLAKE LaMONT, N.D.
a witness, called for examination, having been first duly sworn, was examined and testified as follows:

EXAMINATION

BY MR. ZANG:

Q. Good morning, Dr. LaMont.

My name again is Theodore Zang, and I'm an attorney representing the Federal Trade Commission.

This is a deposition in the action of the Federal Trade Commission versus Daniel Chapter One and James Feijo, and the deposition is being taken now for all purposes in this case.

A couple of procedural things before we go into the substance of the deposition.

I want the record to reflect that you are represented today by counsel. Is that correct?

A. Yes.

MR. ZANG: And Jim, do you want to introduce yourselves?

MR. J. TURNER: Yeah.

Jim Turner, Swankin & Turner, and Christopher Turner from Swankin & Turner.

5

Betsy Lehrfeld will be joining us in the afternoon.
MR. ZANG: Okay.
And one of my colleagues may be coming in shortly as well, David Dulabon.
THE WITNESS: Okay.
MR. ZANG: And also procedurally, Jim, can we agree to the same procedural rules that we've been following, which is that all objections except as to the form of the question and as to the claim of privilege are reserved?
MR. J. TURNER: Yes.
MR. ZANG: Okay.
BY MR. ZANG:
Q. Dr. LaMont, have you ever had your deposition taken before?
A. No, I haven't.
Q. So let me tell you a little bit about the ground rules. And I'm sure that Mr. Turner has said something similar to you, but it's a very odd experience if you've never had your deposition taken before.
So one thing I want to remind you of is that we have a court reporter here, and she's taking down everything that everybody says, and it's important to articulate your answer rather than to shake your head as

6

you might otherwise do in conversation.
A. Right.
Q. Okay. And if you don't understand a question that I ask, please let me know, and I'll do my best to state it again.
A. Okay.
Q. If at any point you need to take a break, please let me know, and we can stop and do that.
A. Okay.
Q. But one question which I need to ask is whether you're taking any medication today which would prevent you from testifying truthfully and accurately.
A. No.
Q. And is there any other reason why you wouldn't be able to testify truthfully and accurately?
A. No.
Q. Okay. If at any point you give an answer and then you realize that you want to change that answer or supplement it, please let me know because, again, the important point is to have a full and accurate record --
A. Right.
Q. -- so I'd like you to do that if that should occur.
A. Okay.
Q. All right. Before we begin, do you have any

7

questions?
A. I don't think so.
Q. All right. Let's go ahead then.
A. All right.
Q. So can you state your full name for the record, please.
A. Sally Blake LaMont.
Q. And can you also provide your business address, please. If it's the same as your home address, that's fine, too.
A. Well, I have a practice, a part-time practice.
Which would you prefer?
Q. The practice address is fine.
A. Okay. 131 Camino Alto, Suite F, in Mill Valley, California, 94941, if you need that.
MR. ZANG: And Mr. Turner, now that we're into the substance, could you please state what Dr. LaMont is being offered as an expert in.
MR. J. TURNER: Yes.
She's an expert in naturopathic medicine, herbal medicine, functional medicine, which would encompass those, and acupuncture and in -- she is an -- we're offering her as an expert on nutritional supplements and botanical medicines in the prevention and treatment of illness and as an expert in reviewing the evidence that

8

supports the functional uses of the four products that are the challenged products.
MR. ZANG: All right.
BY MR. ZANG:
Q. And Dr. LaMont, have you ever been a party to a lawsuit before?
A. No.
Q. Why don't you describe briefly your educational background, please.
A. All right. I have an undergraduate degree in human biology with an emphasis in microbiology from Wichita State University in Wichita, Kansas, where I grew up.
And I then went on to the National College of Naturopathic Medicine in Portland, Oregon -- and that's a four-year, graduate-level naturopathic medical school -- and took board exams for that. And I can define that later.
And then I went through the Emperor's College of Traditional Oriental Medicine in Santa Monica, California, Los Angeles area, and earned my degree as an acupuncturist there and as a naturopathic doctor at the first school, the National College of Naturopathic Medicine.
Q. And what I want to do now is briefly put on the

161

colon cancer or this will cure your lung cancer but rather that turmeric and bromelain and parthenolides and chrysanthemum affect multiple aspects of carcinogenesis and therefore are recommending that you use a food-based dose of these compounds over time.

Q. Let me ask you this.

If on their radio show a caller called in and said, I have colon cancer, what should I do, and they said, Well, take one of our products, take this product, would you have a problem with that approach?

A. Well, I don't know.

Q. For the first time in a while you're showing some hesitancy. Explain your hesitancy.

A. I wouldn't want to have anybody say, Take this, it's going to cure your colon cancer.

I didn't think that that's what these folks were doing. I'm under the assumption that they're recommending that these nutrients are going to support their immune function and help to alter the progression of cancer in its many forms.

The flip side of them not saying -- not educating the public about the benefits of turmeric and green tea and these different agents is that the public goes unaware that there's anything else that they can do to shore up their defenses when they're faced with

162

cancer, and to me that's very -- that's problematic. It's part of the reason we're in this predicament where --

Q. But there are good people like you around to do that education, aren't there?

A. There are, but -- and there need to be a whole lot more because the predominance at this point of the conventional oncologists haven't got a clue that there is a body of evidence that suggests that anything other than pharmacological chemotherapy and radiation is effective in preventing or treating cancer.

And it took Dr. Servan-Schreiber the diagnosis of cancer twice to stop and really investigate that and to determine, at the encouragement of his brother and friends and publicists, that you've got to get this information out.

So I think that there is real value to saying use these products and others, that we understand some mechanism of action whereby they could help to deter the progression of cancer, not that that's going to cure your cancer but that it may help you to survive the process of being treated for it.

Q. And my line of questioning now is really just going to isn't there a good way of educating the public and a way that may not be so good or well-advised.

163

And to the extent that Daniel Chapter One is giving advice with respect to specific cancers, isn't that one of the less well-advised ways to go about this process of education?

A. Can you rephrase that, please.

Q. Let me ask Josett to reread it, and then if you don't understand it, absolutely.

A. Yeah. It's sometimes hard to track these long questions.

Q. It's getting late.

A. Yeah.

(The record was read as follows:)

"QUESTION: And my line of questioning now is really just going to isn't there a good way of educating the public and a way that may not be so good or well-advised.

"And to the extent that Daniel Chapter One is giving advice with respect to specific cancers, isn't that one of the less well-advised ways to go about this process of education?"

MR. J. TURNER: Do you still want him to rephrase the question?

THE WITNESS: Well, I'm just thinking about it. I'm trying to decide if -- if they are in fact giving specific advice regarding specific cancers. And I don't

164

know that they are. I think I would have to see that in the context of their overall -- like I don't know an example that they're saying you have colon cancer, you should take GDU. I didn't -- I don't know that they're doing that.

So I don't think I can answer that question without having the context that it would fit into, without fully understanding that context.

BY MR. ZANG:

Q. If they're approaching the topic in terms of disease and talking about cancer and what to take for cancer generally, are you comfortable with that approach?

A. I'm certainly more comfortable with that than specifically relating that it -- this is going to cure your X cancer. That would fall into the that's-a-big-stretch category. The fact that these herbs, their formulas have a number of different constituents that we have established have known mechanisms of action where they can help to potentially prevent and stop the progression of cancer, I'm more comfortable with that.

Q. But you're most comfortable with what, with the structure/function --

A. Yeah.

165

Q. -- approach?
A. I'm most comfortable with patients being educated, with -- not patients, the public, all of us. Unfortunately, every time a study is done -- like you never see any of these studies in the newspaper. And whenever there's a study that's done even suggesting that a supplement would be useful, immediately there's another one that says that it isn't.
One that's bothering me right now is the one that came out last week proposing that the Women's Health Initiative study concluded that women who take a multivitamin and mineral have no reduced -- there's no reduction in the incidence of heart disease or cancer. I don't buy that.
If you go back and look at the way that is done, that was a questionnaire that those thousands of women who participated checked did you take a multiple vitamin and mineral. We don't know whether they were taking -- I don't want to name one, but let's just say a drugstore variety low dose or whether it was one that actually had a highly absorbable form at a potency that actually might have been expected to promote health in a way that another wouldn't.
I might have rambled there a bit, but it's a --
Q. That's all right.

166

One thing that sticks out in my memory is a radio show transcript of the Feijos' radio show where one of the Feijos referred to doctors or certain doctors as Dr. Dumb-Dumb. I guess they were advocating use of their own products and skepticism about some of the doctors out there.
What do you think about that approach of referring to some doctors as Dr. Dumb-Dumb? Do you think that that's well-advised?
A. Disrespectful. No. Disrespectful.
I mean, I may not agree with all doctors, but I certainly respect their extensive training and the paradigm that they're functioning in.
I actually have many close friends who are medical doctors, was married to one, have -- am in a -- function in a group of integrative doctors, hundreds if not thousands of us who believe very much in the way I have been speaking today, and I'm never inclined to insult a doctor.
Q. Is there a danger if consumers don't continue with traditional cancer therapy?
A. Yeah.
Q. Can you elaborate on what that is, what that danger is?
A. Well, cancer is a very difficult process to

167

stop once it's started, and depending on -- I think that they need to consult and become highly educated in -- whenever a person -- whenever a person is diagnosed with cancer, they need to make their life mission to understand everything that they can about their cancer, how it started, every factor that could have created it, caused it, tripped the trigger on carcinogenesis, and they need to thoroughly take responsibility for their health, seek multiple opinions.
I personally wouldn't take the advice of any one doctor. I would talk to two or three. And I would do Internet searches and I would -- this is what I suggest my patients do. And I think that the more well-informed people are, the better choice that they can make about the direction that they want to go.
Occasionally there will be a person who, for maybe religious purposes or they just live in a different mindset, that there is no way they're going to subject themselves to the traumas and poisoning effect of chemotherapy and radiation. And let's face it. It is poisoning.
I mean, these are cytotoxic agents and not in the sense of, you know, curcumin could kill a cancer cell, but these go in and kill all rapidly reproducing

168

cells in the body. And you lose muscle mass and you lose multiple organ function, and it drives many people to the brink of death just from the therapy. And if they're lucky, they recuperate and can live with that five-year survival rate and be proclaimed a success. Lots don't. And I think -- what are we up to -- 65 percent now of people can live five years past their -- concluding their treatment.
So there's a long ways to go there. Some people are just not going to succumb to that. But that's a choice they need to make.
That's what I have to say about that.
Q. All right. Let's continue on BioMixx.
We've spoken about green tea.
Let's go to the next --
A. And astragalus and Eleutherococcus -- did we talk about astragalus before?
Q. I don't believe so.
A. Well, that's a very famous Chinese herb that really needs to go on the record here for its long use in Chinese medicine. Astragalus is -- its common name is astragalus, too.
Q. What page are you on?
A. We're on page 31.
In traditional Chinese medicine it's been known

209

Do you see what I'm saying?
It's -- I used the evidence -- I used some of this evidence back in the GDU report but actually apparently did not pick up that parthenolide was a constituent of BioMixx, and I don't have it listed here. I did astragalus, Camellia sinensis, green tea and Eleutherococcus. I didn't include parthenolide again.
Q. And with due respect, wasn't that a significant omission in your report?
A. It was. In retrospect it would have been good. But you know, for the record I would like to suggest that we excerpt the materials on pages -- bear with me.
(Pause in the proceedings.)
Actually it is in GDU -- pages 14 through 17 and to add them to -- you know, consider that they could be repeated and applied to BioMixx
Q. Well, I will point out that the deadline for the finalization of the report has passed, so you're welcome to put that into the record, but whether or not it actually can be considered part of the report is a question for a later day.
A. Okay.
Q. Going back to the statement that BioMixx is effective in the treatment of cancer, I want the record

210

to be clear as to whether or not you believe that BioMixx is effective in the treatment of cancer.
A. I've stated that there's a reasonable basis to claim that the ingredients of BioMixx boost the immune system, build lean body mass, support healing and that these ingredients may assist the body in fighting cancer, cachexia, which is the wasting of cancer, and in healing the destructive effects of radiation and chemotherapy treatments.
Q. All right. And that's on page 40 of your report; correct?
A. The conclusion page. Yes.
Q. But you did not write that BioMixx is effective in the treatment of cancer; correct?
A. No.
Q. And that's not one of your conclusions?
A. I said it is a -- its ingredients assist the body in fighting cancer. There's a fine line between treating and fighting, as we've discussed throughout the day.
Q. And so again, you're not concluding that BioMixx is effective in the treatment of cancer; correct?
A. Not independently, but as an adjunct I believe that it is effective in, as I've stated, mitigating

211

some of the negative effects of chemotherapy and -- yes.
Q. So again, I'm just trying to get a clear record.
A. Yeah.
Q. And I understand it's your testimony that there's a fine line, but again, you're not concluding that BioMixx is effective in the treatment of cancer?
A. In treating cancer, no.
Q. Okay. And are you concluding that BioMixx heals the destructive effects of radiation and chemotherapy?
A. No. I am saying that there's evidence to suggest that astragalus and Eleutherococcus may mitigate some of the effects of radiation and chemotherapy, but I'm not -- how did you put it? Heal?
Q. Concluding that BioMixx heals the destructive effects?
A. Heals, yeah. It may help to heal but not necessarily completely heals.
MR. ZANG: Okay.
All right. Well, this has been a long day, and I really thank you for coming here today and testifying.
I have no further questions.

212

If your counsel does, then I turn it over to you, Jim.
MR. J. TURNER: No. I have no questions -- well, let me just check.
(Pause in the proceedings.)
THE WITNESS: I survived my first deposition, off the record.
MR. ZANG: Congratulations.
THE WITNESS: Oh, thank you. You were a nice partner to have in it.
MR. ZANG: Off the record.
(Discussion off the record.)
MR. J. TURNER: All right. We have no questions.
MR. ZANG: So let's go off the record.
(Whereupon, the foregoing deposition was concluded at 4:17 p.m.)

CERTIFICATION OF REPORTER

DOCKET/FILE NUMBER: 9329
CASE TITLE: Daniel Chapter One and James Feijo
HEARING DATE: February 17, 2009

I HEREBY CERTIFY that the transcript contained herein is a full and accurate transcript of the notes taken by me at the hearing on the above cause before the FEDERAL TRADE COMMISSION to the best of my knowledge and belief.

DATED: FEBRUARY 18, 2009

JOSETT F. WHALEN, RMR

CERTIFICATION OF PROOFREADER

I HEREBY CERTIFY that I proofread the transcript for accuracy in spelling, hyphenation, punctuation and format.

DIANE QUADE

CERTIFICATE OF DEPONENT

I hereby certify that I have read and examined the foregoing transcript, and the same is a true and accurate record of the testimony given by me.

Any additions or corrections that I feel are necessary, I will attach on a separate sheet of paper to the original transcript.

SALLY BLAKE LaMONT, N.D.

I hereby certify that the individual representing himself/herself to be the above-named individual, appeared before me this day of , 2009, and executed the above certificate in my presence.

NOTARY PUBLIC IN AND FOR

MY COMMISSION EXPIRES:

WITNESS: SALLY BLAKE LaMONT, N.D.
DATE: February 17, 2009
CASE: In the Matter of Daniel Chapter One and James Feijo

Please note any errors and the corrections thereof on this errata sheet. The rules require a reason for any change or correction. It may be general, such as "to correct stenographic error" or "to clarify the record" or "to conform with the facts."

PAGE	LINE	CORRECTION	REASON FOR CHANGE

IN THE UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION
OFFICE OF ADMINISTRATIVE LAW JUDGES

In the Matter of	)	**Docket No.: 9329**
DANIEL CHAPTER ONE,	)	
a corporation, and	)	**PUBLIC DOCUMENT**
JAMES FEIJO,	)	
individually, and as an officer of	)	
Daniel Chapter One	)	
	)	

CERTIFICATE OF SERVICE

I certify that on March 10, 2009, I served or caused to be served the following document on the individuals listed below by electronic mail, followed by Federal Express delivery:

Memorandum in Opposition to Complaint Counsel's Motion for Summary Decision
Respondents' Motion to Allow Additional Witnesses During Respondents' Case-in-Chief and Argument in Support

Service to:

Donald S. Clark
Office of the Secretary
Federal Trade Commission
600 Pennsylvania Avenue, NW, Room H-135
Washington, DC 20580
Email: secretary@ftc.gov

Leonard L. Gordon, Esq. (lgordon@ftc.gov)
Theodore Zang, Jr., Esq. (tzang@ftc.gov)
Carole A. Paynter, Esq. (cpaynter@ftc.gov)
David W. Dulabon, Esq. (ddulabon@ftc.gov)
Federal Trade Commission – Northeast Region
One Bowling Green, Suite 318
New York, NY 10004

Courtesy Copies:

Hon. D. Michael Chappell
Administrative Law Judge
600 Pennsylvania Avenue, NW, Room H-106
Washington, DC 20580
Email: oalj@ftc.gov

Martin R. Yerick
Swankin & Turner
1400 16th Street, NW, Suite 101
Washington, DC 20036