C.C. is a 55 year old white male with a diagnosis of stage IV multiple myeloma. He was being treated with classical oncologic treatments that included Prednisone, Zometa, Coumadin, Vicodin, Cyclobenzaprine and Thalidomide. He never went into remission. At the time of his first consultation he was confined to a hospital bed except for bathroom visits. Because of severe bone pain, walking was very difficult, and riding in a car (due to the bumps) was almost impossible. Even lying in bed was painful. He was so weak that lifting a phone book was too much for him. He had severe fatigue and even the work of breathing was difficult. Clearing phlegm from pooled secretions was a constant problem.

After consultation, he was started on a nutritional program to support his body to fight against the cancer. This consisted of a highly active specialized blend of pancreatic enzymes branded under the name of Pan Alone at a beginning dose of three capsules, one hour before meals, four with meals, and three at bedtime. The Pan Alone dose was gradually increased up to 72 capsules daily in divided doses with 10 one hour before meals, 12 with meals, and 6 at bedtime. The initial cycle was 10 days on, and five days off. After two months this was increased to 15 days on and 5 days off and then after two more months to 20 days on and 5 days off.

The patient was instructed to do three coffee enemas daily.

Far infra red sauna therapy was started with three daily at 20 minutes each. This was gradually increased to two daily at 45 minutes each. (The patient mounted three 250 watt far infrared light bulbs in an unused shower for this purpose).

The following supplements were done three times daily with meals for the first 90 days:
- Panamin, SBE, Limcomin, Livaplex, Immunoacal, Megapan,
- Fioradix, CallMag with Zinc, kelp tablets and Super EFE

These were replaced with AG Immune Cytozyme, Spleen, Adrenal, Liver and Thymus (Biotics), Perque Life Guard, Bone Guard, Betty Lee HCL, Carlson Vitamin D, Nature's Balance Chlorella (10 with each sauna), Selectrolytes 3-4 with each sauna, Iodoral and probiotics (Dr. Ohhirâ's) rotated with Caprobiotics. BioBuilde was given 10 tablets 3 times a day to increase protein intake.

The heavy metal detox was done with Metal Free and dosage was adjusted every three months based on hair analysis. The hair lab results are given below.

**Diet:** No fruit or fruit juice. Organic vegetables, filtered water, eggs (soft boiled or poached) non wheat cereal, goat cheese, nuts, almond butter, organic chicken thighs, turkey and salmon, and goat yogurt.

After seven months into the program his was greatly improved. He was weaned off all of his prescription medication. His energy levels had vastly increased. He was rebounding one hour per day for exercise and was able to carry groceries and drive his truck. He was nearly pain free. The patient stated that his energy level was so good he felt like jogging. He no longer needed his back brace. Sleep was good and pain free. His most recent labs showed HCG, CEA, PHI, GGTP and DHEA all in normal range.

**Hair analysis from ARL Analytical Research Labs:**

**Start of Program:**
- Manganese 0.15 very elevated (normal range .01-.04)
- Hg 0.23 moderately elevated
- Cd mild elevation 0.03
- Al mild elevation 0.57

**Three months later:**
- Manganese 0.13 (down from .15)
- Hg 0.32 highly elevated (up from .23),
- Cadmium 0.08 highly elevated (up from 0.03),

**Three months later:**
- Manganese 0.032 (normal!)
- Hg 0.052 now barely detectable (down from 0.32),
- Cadmium 0.113 very elevated (up from 0.03)
This case is presented by Pamela J. McDougle. Pamela is a very dedicated and perceptive nutritional consultant who has had great success in her own patients and in helping physicians to learn from her successes to help their own patients. Pamela worked very closely with Dr. William Donald Kelly for many years and has refined and improved his approaches to nutrition in patients with cancer. She helps patients to deal with the basic underlying reasons for the development of cancer, including pancreatic organ failure, heavy metal and other toxicities, nutritional deficiencies, and immune system overwhelm. Her methods embody the essence of Biological Medicine and when done properly and with full patient compliance can often help to restore the body back toward healthy function.

In December of 2003, due to her excellent results, Pamela was invited to speak and present seven cases at the Janet Travell Memorial Lecture Series on the topic of “Fifteen Years of Experience In Nutritional Intervention For Terminal Cancer Patients.” Pamela does trainings for physicians and other practitioners who may be interested in learning her work. She can be reached at PamelaJMcD@aol.com.

One of the important cornerstones of this approach is the use of a very potent blend of pancreatic enzymes that Pamela has formulated called Pan Alone. A manuscript on the theoretical scientific basis for high dose pancreatic enzyme therapy in cancer is included here as a reminder for those who are familiar with it and as a basic primer for those learning about it for the first time.

**The Scientific Basis of the Kelley Nutrition Protocol**

*by Professor Kathy P. Fairbanks, Ph.D. (Embryology)*

**What is Cancer?**

Cancer is a process misunderstood by the medical community. Cancer is classified by the medical community as a fast-growing malignant tumor, which, if allowed to grow unchecked, will cause death. Many clinicians believe that cancer is a complex: a number of different diseases, each having its own cause. Most doctors, even research scientists, suppose such things as viruses, X-rays, cigarette smoking, chemicals, sunlight, and trauma cause cancer. However there are a growing number of cancer researchers who believe that these factors, rather than causing cancer, are indirect stimulators of a normal trophoblast-like pleuripotent cell. This trophoblast-like cell then makes its “false placenta”, a malignant tumor mass, which the medical community calls cancer.

**In the Beginning**

In the first five days after fertilization in the formation of a human embryo, the growing mass of cells divides into two kinds of cells, an inner cell mass (embryoblasts) which will become the embryo, and an outer layer of cells called the trophoblast, which later forms the placenta. This process is so complex that less than half of the developing masses ever progress past this stage. Something goes wrong with normal development and they are expelled from the woman’s body before they can implant themselves in the uterus.

After the cell mass attaches to the wall of the uterus, the trophoblasts invade the lining of the uterus, growing quickly and invasively, as a tumor does when invading an organ of a human body. The trophoblast cells invade, digest a hole in the wall of the uterus and form a multinucleated mass with no cell boundaries, which looks under the microscope like the cells of a carcinoma. During this invasion of the trophoblasts into the uterine wall, the pregnant woman may feel nauseous with “morning sickness” due to the trauma of being assailed by this cancer-like mass. As small blood vessels are invaded and digested by the invading trophoblast, pools of blood form in the tissue which nourish the growing mass. The failure of the maternal tissue to reject this implantation has always puzzled embryologists and immunologists. One current view is that the trophoblasts lack a certain protein on their surfaces, and thus are not recognized as foreign by the mother’s body.

**Primary Germ Cells**

During the time that the trophoblast cells are aggressively infiltrating the maternal tissue, the inner cell mass is organizing itself into a three part disc, shaped like a flying saucer. These three parts of the disc are called the three primary germ layers, or the ectoderm, the endoderm and the mesoderm. Each of these three layers becomes a different part of the human body. The ectoderm becomes the skin, the brain, and the nerves. “Ecto” means surface, and indeed these cells become the surface covering of the body, and the nerves which are the interface of the body with the outside world. The endoderm becomes the linings of many organs, such as the lungs, the intestines, liver, and pancreas. “Endo” means within, and indeed these cells become almost all of the linings of the body. The mesoderm becomes the muscles, blood, bone, and the reproductive organs. “Meso” means middle, and these mesoderm cells, which form as the middle layer of the disc, become the vast majority of the cells of the body, forming almost all of the different cell types.

This process of organ formation involves extensive migration of certain cells from the disc to their future sites. The mesoderm cells come from an area on the disc known as the primitive streak. Under a microscope, a dark streak progresses visibly along the center of the disc from the tail end to the head end of the disc.
primitive streak is caused as ectodermal cells drive down into the middle of the disc, like the filling of a sandwich, becoming mesodermal cells in the process. This migrating of ectodermal cells becoming mesodermal cells happens very early in development, between two weeks and three weeks after the trophoblasts begin invading the uterus of the mother. These migrating cells, which come from the primitive streak, are pleuripotent. The mesoderm cells are called pleuripotent, because under different circumstances they are able to follow more than one pathway of development. In other words, mesoderm cells can potentially form many kinds of tissue. They are cells which are closest in nature to the unruly aggressive trophoblastic cells that have formed the placenta.

This broad developmental potential of the pleuripotent cells becomes more and more restricted and checked as the tissues acquire the specialized control mechanisms to guide the cells in their development. Increasingly complicated migrations of cells occur as the body of the new human is forming. For instance in the ectoderm, neural cells migrate in myriad directions and become specialized neurons. This reglementation of a cell’s capabilities must occur in order to form, for example, a bone cell as opposed to a muscle cell in the mesoderm. Such reglementation comes about in response to cues from the immediate surroundings, including the nearby tissue. The precision and coordination required for correct development is dependent upon these interactions. Thus, nearby tissues influence development of certain cells, probably by signals carried by certain protein molecules. Interestingly enough, these signals must also occur at certain precise times, so that a delay in these signals may lead to the failure of correct interactions, leading to various kinds of defects. Many of these defects cause the death of the developing embryo, and some lead to birth defects.

Direct Cause of Cancer

The intricate and precise orchestration of the formation of a normal human from the original inner cell mass is a miracle of precision timing and maturation of these pleuripotent cells. Every normal human contains varying numbers of cells, which have not completed their correct migrations, thereby leaving “sleeping” pleuripotent cells scattered throughout the body. When these pleuripotent cells are activated through genetic, environmental, or nutritional factors, a tumor cell mass, similar to the invasive trophoblastic cell mass, can begin to form. This cancerous tumor can contain various types of tissue, such as chips of bone or hair. These scattered pleuripotent cells are normally prevented from becoming a cancerous tumor through circulating protein molecules, which keep their growth in check. It has been theorized that when a human body does not have enough of these patrolling molecules, the pleuripotent cell grows in an unrestrained fashion, becoming a carcinoma.

In summary, the early embryo has two cell types: the trophoblast and the embryoblast. The embryoblast becomes the three germ cell types: the ectoderm, the endoderm, and the mesoderm. The mesodermal cells are pleuripotent, with a vast ability to become many different kinds of cells. Some of these remain “sleeping” dispersed throughout the tissues of the body.

How Do Enzymes Work?

Enzymes are normally produced by the pancreas to help digest the food that enters the small intestine from the stomach. Different kinds of enzymes work on protein, on fats, or on starch and sugar. By the action of these powerful enzymes, large particles of protein, fat or starch are broken down into smaller and smaller pieces, until they are small enough to pass through the wall of the small intestine and be used in the human body for nourishment. Enzymes remaining in the small intestine serve there to digest food coming into the intestine from the stomach. These enzymes in the intestine also can be absorbed through the wall of the small intestine into the body, and travel in the blood stream to distant locations in the body where they are needed.

Why don’t these powerful enzymes start dissolving the very tissues that they are passing through? How can these enzymes travel to the tumor and only digest the cancer, without harming the person’s body in which the cancer is growing? The secrets to how the enzyme can tell the difference between “good tissues and bad tissues” lies in a difference as small as the difference between your right hand and your left hand. Almost all the billions of tiny molecules in the body are either right-handed or left-handed. As an example of right and left handedness, let’s look at a pair of mittens. In a pair of mittens you find one for the right hand and one for the left hand. They are mirror images of each other, but if you tried to put the right-handed mitten down on top of the left-handed mitten, they would not match. In a mysterious way, the human body uses only right-handed sugar molecules but only left-handed protein molecules.

The above paragraph has discussed right-handed sugar molecules and left-handed protein molecules. Logic raises the question where are the mirror image substances? Where are the left-handed sugar molecules and the right-handed protein molecules? These are found within the placenta, which is made of trophoblasts. These are also found within the trophoblast-like tumor cells. What difference does this make for the enzyme trypsin?

We know that the enzyme trypsin acts on cooked left-handed proteins and living (non-cooked) right-handed proteins. Normally, when we eat a meal, the cooked left-handed proteins, which we eat, are digested in the small intestine by the trypsin released by the pancreas. Trypsin does not act on the organs of the human body, because these are living left-handed proteins. However, trypsin is very effective at breaking down living right-handed proteins. And where did
we say living right-handed proteins could be found? These living right-handed proteins are the substance comprising the cancerous tumor. So, the trypsin can travel via the bloodstream to the tumor, and its action there is on the protein mass that makes up the tumor. It breaks down the protein mass of the tumor and “liquefies” it.

As further explanation, this cancerous tumor needs an enzyme with which it can digest the organ or tissue of the human where the tumor is located. It uses human tissue as food. To obtain its needed enzyme, the tumor itself makes the enzyme! This tumor-made enzyme is called “malignin” which does digest human protein. Malignin is a cancer growth stimulator. Malignin stimulates growth of a cancerous tumor, thereby producing more malignin, causing increased tumor growth which makes further malignin in a progressively expanding growth sequence.

Thus, a growing cancer tumor continually makes increasing amounts of its own growth stimulator in a progressively expanding sequence. This malignin is the mirror image enzyme to trypsin. In other words, trypsin and malignin are mirror images of each other, as your right hand and left hand are mirror images of each other. As trypsin acts on living right-handed protein, namely the tumor mass, so malignin acts only on living left-handed proteins, namely human tissue.

Trypsin in sufficient quantities can begin to break down the cancerous tumor but not fully digest the cancerous tumor. During the breakdown process, trypsin produces some intermediate proteins and needs a second enzyme to complete their digestion, i.e. “liquefaction”. Therefore, to be successful, the enzyme treatment for cancerous tumors must include both of these enzymes in sufficient quantities to render the products of tumor digestion harmless.

These enzymes work by traveling through the bloodstream to the site of the tumor and digesting the specific protein of the tumor mass, without harming the body's tissues at all. This fascinating story of the matching right and left handed molecules, trypsin and malignin, was explained almost a century ago by a Scottish professor by the name of John Beard, D.Sc. He published his work in London in 1911. His revolutionary book was entitled, The Enzyme Treatment of Cancer and Its Scientific Basis. At that time some cancers were treated by direct injection of the enzymes near the cancer mass. Now, we realize that injecting the enzymes is unnecessary, since swallowing capsules containing the enzymes will also work. Trypsin will only digest the protein of the tumor, thus it can safely travel through the body.

Patients with advanced cancer are often confused about what avenues they should pursue in their treatment. Traditional therapies are often used, and if unsuccessful, as a last resort, Biological approaches are often tried.

There is little debate on the importance of nutrition in cancer care no matter which avenue is used. For this reason, practitioners should be well versed in using such methods as presented here to help get improved patient outcomes.

Biological Medicine is the science of working with the laws of nature and life to heal the body. When these principles are followed, and the patient is compliant, and providing we are not too late, we can be successful.

The purpose of this series is to present illustrative cases from different practitioners in order to demonstrate the highly effective principles and practice of Biological Medicine. If you have cases that have educational value for others using Biological Medicine in practice, please email them in Word format to Dr. David I. Minkoff, M.D. at drminkoff@bodyhealth.com. They will be presented each month as part of the Best Cases in Biological Medicine series.