

# **Silver Cancer Institute Program for Integrative Oncology**

## **For new prospective patients**

Research is clearly shown that there is a strong desire by the American public for integrative oncology. This may be due to the increasing number of studies validating these holistic and alternative therapies which are from all over the world including Europeans and Asians. I blend both conventional and alternative medicine whereby I practice integrative oncology. I have been a cardiologist for 45 years and I have been practicing integrative oncology for the last 25 years. I have been a cancer survivor for 20 years I can give you peer-reviewed, cutting-edge, nontoxic therapies gathered from around the world.

**I am now in Scottsdale Arizona and Clearwater Florida.**

## **Are we winning the war against cancer?**

According to Dr. Ian Haines who wrote in Lancet 2014 “We have used toxic and overly aggressive chemotherapy for 40 years with incurable solid cancers and there have been no studies that show that maximum tolerated dose of chemotherapy achieves longer survival or better quality of life than to minimum effective doses.”

Chemotherapy uses toxic drugs to target the rapid proliferation of cancer cells. The problem is that organs and tissues also contain normal cells that are rapidly replicating, and these are therefore also targeted along with the cancer cells. This includes the gut lining, accounting for nausea and vomiting commonly seen after chemotherapy. Also, bone marrow depression can cause anemia with low hemoglobin or neutropenia with a low white blood cell count.

Chemotherapy is disappointing because of cancer relapse after completing treatment. The cancer is not totally eradicated and comes back. Relapse is caused by cancer stem cells, which are quiescent, not actively replicating, and resistant to chemotherapy drugs. Other treatments are necessary to attack the cells.

After completing a course of chemotherapy, the tumor bulk may be eradicated, with a negative PET scan. However, hidden from view are the residual microscopic circulating cancer stem cells hiding in their niche, latent, and biding their time until the activation is triggered, causing regrowth and relapse of cancer. When cancer returns, the cell type may become more aggressive and resistant to further chemotherapy. Another adverse effect of chemotherapy on the host immune system is that it allows the tumor to escape immune detection and eradication.

## **New genomic targeted oncology**

There is now a new paradigm shift in oncology with the use of the targeted genomic pathway approach. I feel that the existing framework for cancer drug development is insufficient and unsustainable. We should be using new technology such as systemic high throughput methods for screening laboratories of

drugs for further anticancer efficacy. Understanding tumor biology is important as well as finding effective new drug combinations.

## **Cancer testing for my patients**

When I evaluate you, getting to the root cause of your cancer is important. These include nutritional deficiencies, poor diet, infections, toxins, dental infections and amalgams, digestive imbalances, neurotransmitter imbalance, sensitivities and allergies, genetic abnormalities, hormone imbalance, as well as mental and emotional, and spiritual factors. Approximately 30-50% of cancers can be prevented by avoiding risk factors and implementing existing evidence-based prevention strategies.

Chemosensitivity testing, testing for natural substances, immune function testing, evaluation of circulating cancer stem cells, and evaluation of the cancer exome, RNA, and proteins are performed. These allow for personalized treatments which are unique to each patient. Once these are completed and evaluated personalized treatment plans are implemented.

## **Cancer treatment options**

The treatments include nontoxic cancer therapies, photodynamic therapy, hyperthermia with both local and total body application, low-dose genomic fractionated chemotherapy (insulin potentiation therapy IPT) peptide therapy, cancer vaccines, repurposed cancer drugs, restoration of the immune system, detoxification, oxygenation with hyperbaric oxygen therapies as well as intravenous ozone and the Hocatt, NanoVi, PEMF, and far and near infra-red sauna, molecular hydrogen and vibrational therapy. In addition, your microbiome is evaluated and restored. Your infections are also eradicated.

## **Nontoxic intravenous natural cancer-killing**

I use many different nontoxic therapies to help kill your cancer. Remember circulating cancer stem cells are not affected by traditional chemotherapy. For that reason, other therapies need to be used. These are usually administered intravenously and occasionally orally. Personalized substances are utilized after appropriate testing.

## **Photodynamic therapy**

This therapy uses advanced multi-wavelength laser light technology to deliver wavelengths in the ultraviolet, visible, and infrared regions as a spectrum. This is delivered through a fiberoptic laser technology to deliver light intravenously, topically, or directly into the tumor interstitially. Each of the different wavelengths can activate a photosensitizer specific to that wavelength.

These wavelengths have profound therapeutic benefits in this type of therapy known as “photo bio-modulation or low-level laser therapy. These can treat freely circulating cancer stem cells that are responsible for metastasis. Other benefits include increasing oxygen uptake in the blood, enhancing metabolism, decreasing, and removing the bad LDL lipoproteins, simulating the mitochondria, stabilizing cell membranes, and increasing the release of melatonin. In addition, these have antimicrobial effects.

## **Full body hyperthermia**

Full-body hyperthermia targets abnormal cells and pathogens by elevating the temperature of the entire body. We use an insulated chamber to raise the body temperature. The goal is usually to raise the oral temperature to approximately 101.5. The core body temperature will then rise to about 2°F, at that temperature, cancer cells lysed and start to break apart. Temperatures can reach as high as 182 to 190 degrees. All temperatures are personalized, and we always start with low levels.

At the same time, oxygen is administered because the patient's head is kept outside the chamber. This also helps kill your cancer. The effectiveness of chemotherapy and radiotherapy is increased with hyperthermia.

In addition, hyperthermia stimulates heat shock proteins which activate antitumor immunity during tumor cell necrosis. Such induced immunity was shown to assist in tumor regression as well as reduce the recurrence of metastasis.

## **Local hyperthermia**

We use a highly advanced monopolar radiofrequency to raise heat locally at the tumor to temperatures of 104 to 113 degrees if needed. The constant elevated temperatures deprive cancer cells of their ability to conserve substances that they need to survive. By destabilizing the blood vessels that feed the tumor they die.

Hyperthermia inhibits tumor blood flow resulting in a collapse of the tumor's vascular system. Not only does it cause the cancer cells to break down, but it increases the immune system response as well as increases tissue oxygenation and detoxification. It also promotes cellular repair and regeneration. In the European Journal of cancer in 2001 hyperthermia doubled the 5-year survival rate of those that used it in addition to conventional therapy.

## **Insulin potentiation therapy**

Low-dose fractionated genomic chemotherapy or insulin potentiation therapy is a method that uses insulin to effectively transport low-dose chemotherapy into the cancer cell. Cancer cells have 7 times the amount of insulin receptors on the surface of the cell membranes, and 10 times as many insulin growth factors as normal cells. I normally use 1/10 the dose of traditional chemotherapy but sometimes higher depending on each patient. My choice of chemotherapy is based on the chemosensitivity testing that I obtained prior to the initiation of therapy.

There is much less collateral damage and many fewer side effects. My patients do not lose their hair or have diarrhea or nausea. Whatever the side effects they usually occur within the first 24 hours and are quite mild and quickly go away. I do not use this therapy on all my patients. I use it on a case-by-case basis. The patient is monitored closely, and blood tests are obtained to monitor white blood cell counts and red blood cell counts as well as platelets.

## **Immune Peptides for cancer**

Cancer therapy with peptides is a new approach to target the abnormal cancer exome. Therapies can stimulate the innate immune system and evaluate the need for specific immunotherapies and specific chemotherapy and/or natural substances.

When profiling certain cancer, it is vitally important to include all the data available. Urine proteomics along with next-generation sequencing is very powerful as well as understanding profiling of the tumor microenvironment and the excretion behavior. Next-generation sequencing profiles genes that are associated with tumor development, proliferation, and resistance.

Urine proteomics distinguishes excretion products that may be associated with certain immune proteins, metabolic remnant proteins, and other important biomarkers that may not be discovered by next-generation sequencing alone.

The urine proteins that are uniquely expressed in your cancer and tumor RNA can then become the product base for precision peptides designed for each patient.

Therapeutic peptides have great potential in the treatment of cancer. They are small and can penetrate the cell membrane. They also have high activity and specificity with minimal drug-to-drug interaction. They do not accumulate in specific organs. These target cancer cell membranes and can induce cancer cell death either by necrosis or apoptosis. These peptides are genomic and personalized to each patient.

## **Cancer vaccines**

These include cytotoxic T-cell vaccines, natural killer cell vaccines, dendritic cell vaccines, supportive oligonucleotides, and others. By activating your own immune system, we can more effectively treat your cancer. These are manufactured from your circulating cancer stem cells found in your blood.

## **Repurposed Cancer drugs**

A repurposed drug is an old drug that the FDA originally approved for a specific purpose now used “off label” for something else. There are now hundreds of re-purposed cancer drugs. The revolution in cancer treatment is happening with a grassroots movement of people using re-purposed drugs to target metabolic pathways in both the original tumor and the circulating cancer stem cells. In my opinion, this is a historic revolution in the history of medicine.

With repurposed cancer drugs I attempt to block several different cancer pathways. These include glycolysis, oxidative phosphorylation, the electron transport chain, and autophagy. These are nontoxic therapies that have been found to be quite useful. At the present time, there is much research concerning their effectiveness. It is necessary to impede all pathways because cancer cells have tumor cell plasticity so that they may survive.

Is especially important that I follow my patients because these drugs can and do have side effects. Are our therapeutic blood levels adequate? Are there adverse effects of drug toxicity? Is the drug useful for humans? Is the drug too toxic for human use? What is the drug-drug interactions? Monitoring is essential.

## **Restoration of your innate immune system**

**For** years my innate immune system was not functioning properly. Because of that, I had cancer and a multitude of infections. Thanks to these new cutting-edge therapies I have now restored my immune function. We do evaluations prior to and post initiation of treatment.

## **Detoxification**

Our environment has dramatically changed. We have polluted our air, soil, food, and water with synthetic chemicals, electromagnetic radiation, and other toxins which in turn polluted every cell in our body. Every day the planet becomes more toxic with thousands of new chemicals and pollutants into the environment. Obviously, all detoxification starts with toxin avoidance. You need to make healthy lifestyle choices.

Detoxification is especially vital for late-stage cancer patients who have undergone chemotherapy and radiation because these therapies have great toxicity in the cells, and in turn affect the health and integrity of the cells.

The body has many different detoxification pathways to eliminate these, but the main ones are through your breath, your skin, your urine, and your bowel movements.

Modalities employed include juicing, coffee enemas, infra-red sauna, good bowel health, lymphatic drainage, liver, and gallbladder cleanse therapeutic breathing, heavy metal removal, dental detoxification, and creating a healthy living environment in your home. Especially important are household cleaning products and personal care products. I tried to eat a plant-based low sugar organic ketogenic alkaline diet whenever possible

The electromagnetic field toxicity with all the daily exposure to Wi-Fi, smart meters, cordless and cell phones, power lines, appliances, and computers can cause cells to vibrate more rapidly divide, and mutation. Thousands of studies have linked electromagnetic fields to cancer and other diseases. I personally turn off my Wi-Fi and cell phone at night and use a landline instead of a cordless phone. I try to minimize my cell phone usage and unplug appliances when I am not using them.

## **Hyperbaric oxygen therapy (HBO)**

Cancer cells do not survive well in an oxygen environment. Therefore, any therapy that increases oxygen to your cells can help you heal from cancer. Hyperbaric oxygen involves delivering oxygen to the body under high pressure.

The patient is placed in a chamber with a pressure of oxygen that can be increased and controlled. Oxygen is then dissolved into all the body fluids including that plasma as well as the central nervous system, and lymphatic and skeletal systems in all areas of the tumor. Cancerous cells grow in a low supply of oxygen. Therefore, the cancer is more susceptible to cell death and apoptosis with hyperbaric oxygen.

Many studies support hyperbaric oxygen's benefits in cancer therapy. In 2016 in Medical Oncology, they concluded "hyperbaric oxygen can provide many clinical benefits in the treatments of the tumor, including management of highly malignant gliomas at the type of brain cancer." Researchers also stated that it can enhance the effectiveness and conventional therapies.

## **Ozone therapy**

Ozone has been used for many years for integrative oncology. I have used it myself for over 25 years and have found it to be effective. The use of ozone can decrease oxidative stress. It floods cancer cells with oxygen and can stimulate your immune function. In addition, there is an increase in microcirculation in healthy cells which can aid in cell repair. We also do ultraviolet blood irradiation which is synergistic with intravenous ozone. I have also done ozone injections under ultrasound guidance.

## **Hocatt Therapy**

This stands for "hyperthermic ozone and carbonic acid transdermal therapy" there is also the addition of ozone, oxygen, photon light, pulsed electromagnetic frequencies (PEMF), and other frequencies. This is heated ozone steam that enhances the oxygenation of the tumor cell to help inhibit its growth.

## **NanoVi Therapy**

This is a form of bioidentical signaling to help maintain normal protein folding and function. In addition to this free radicals can be lowered. Studies done before and after can measure damaged DNA in the urine. Many patients with chemicals and other exposures had decreased levels of DNA damage after treatment. In addition, it can reduce inflammation within the body, improve mitochondrial function and improve the immune system.

## **PEMF pulsed electromagnetic frequencies**

As explained in Cancer Medicine, 2016 "Mechanisms and therapeutic effectiveness of pulsed electromagnetic field therapy and oncology," PEMF has several advantages in the treatment of cancer.

This therapy has been extensively studied in vitro using human cancer cell lines such as in pheochromocytoma, breast cancer, and colon cancer. The studies have shown that PEMF therapy inhibits proliferation and can cause mitotic spindle disruption as well as block the development of neovascularization required for tumor supply. Its effects selectively target cancer cells and not normal cells.

In vivo studies with breast cancer in mice were notable. Mice exposed to PEMF for 60 and 180 minutes daily showed a 30% and a 70% breast tumor reduction respectively, at week 4. Hepatocellular cancers showed the same effectiveness.

## **Far and near-infrared full-spectrum saunas**

The sauna can detoxify the body much more effectively than standard sauna units. They produce heavy natural sweating that moves harmful elements out of the body and mobilizes toxins. In addition to the heat, our immune system is supported by increasing levels of white blood cells. There is also decreased inflammation.

The near-infrared sauna also has several other benefits. They reduce the body's pathogenic load, by killing infections caused by bacteria and viruses. They can help eliminate cancer-causing chemical toxins such as heavy metals, via perspiration. In addition, they reduce the body radioactive load that patients may carry because of prior radiotherapy treatments and imaging studies. Most of my patients have had previous radiotherapy treatments and many imaging studies. They may also relieve pain and improve blood flow.

## **Vibration therapy with PEMF**

Compared with traditional physical therapy vibration therapy has more positive results in a shorter period. There is an increase in skeletal muscles increasing muscle volume and strength with better performance. You can prevent muscle atrophy.

Skeletal muscle contraction is also involved with circulation, lymphatic drainage, nerve function, protein metabolism, insulin sensitivity, and blood pressure regulation. There is improved bone mineral density. This treatment has been combined with pulsed electromagnetic field therapy (PEMF) which actively improves blood flow and oxygen uptake. This inhibits tumor growth and reduces the risk of cancer recurrence.

## **Molecular hydrogen inhalation**

In cancer, there is growing evidence that shows that hydrogen gas can alleviate the side effects of chemotherapy and radiation. In a combined study with doxorubicin, a type of chemotherapy, there was an improvement in heart function and toxicity with the injection of hydrogen. The hydrogen ameliorated the mortality and cardiac dysfunction that was caused by the chemotherapy.

Hydrogen is anti-inflammatory, and in some cancers, hydrogen suppresses the growth of cancer. Very important to note is that hydrogen gas selectively scavenges and neutralizes the hydroxyl free radical to lower free radical damage.

We utilize an inhalation machine that makes 99.9999% pure hydrogen. We can also generate hydrogen water.

## **SUMMARY**

I like to practice what I preach so I do many of these therapies on myself. It has been 20 years and I am still cancer free. Many of the recommendations that I give to my patients I also incorporate into my own life.

I have studied with great practitioners in the world teaching me integrative oncology. I have brought treatment modalities from around the world together under one roof.

I aim to continually develop and deliver cutting-edge, research-based, effective nontoxic therapies and protocols to provide my patients with the best possible care anywhere in the world.

I am convinced that the treatment of cancer is multimodal, and all the therapies listed here are synergistic. My mission is to become known as one of the world's number one choices for integrative cancer care.

If you are interested in cancer prevention, cancer treatment, or prevention of recurrence I can help you.

**I now have centers in Scottsdale Arizona and Clearwater Florida.**

**For more information contact me at 480-361-7020.**

**Dean R. Silver, MD**