

# Silicon Valley Health Institute

host of the Smart Life Forum

NEXT MEETING: Thursday, November 15, 2012, at 7pm

**Frank Shallenberger, M.D.**

*“Better Oxygen Utilization Improves  
Cancer Outcomes”*

**Stephanie Seneff**

*“Let the Sun Shine In!”*

## *Meet Frank Shallenberger, M.D.*



Dr. Shallenberger has been practicing medicine for 25 years, after graduating from the University of Maryland School of Medicine, and receiving post graduate training at Mt. Zion Hospital in San Francisco. Frank is one of only 16 physicians in Nevada that are licensed both in conventional medicine as well as alternative and homeopathic medicine, allowing him to integrate the best of both approaches for optimal results.

Dr. Shallenberger is a member of the American College for the Advancement of Medicine, The American Preventive Medical Association, and the American Academy of Anti-Aging Medicine. He has served as a founding board member of the International Bio-Oxidative Medical Foundation, and is also a board member of the Society for Orthomolecular-Health Medicine. He is a past Clinical Instructor of Family Medicine at the U.C. Davis School of Medicine, and has been appointed by the governor of Nevada to serve on the

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## **Presentation Location:**

Cubberley Community Ctr.  
Room H1  
4000 Middlefield Rd.  
Palo Alto, California  
Driving directions on our website,  
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Foundation for Mind Being Research ([www.FMBR.org](http://www.FMBR.org))  
November 30 (the fifth Friday) Meeting: Bill Bengston, PhD, will be our speaker.  
His topic will be: “Lessons from the Lab: Energy Healing Experiments on Cancer”,

*(MEET FRANK SHALLENBERGER, M.D., continued)*

Nevada State Board of Homeopathic Medical Examiners. Dr. Shallenberger is a specialist in Anti-Aging Medicine, and is board certified by the American Board of Anti-Aging Medicine. He has published several scientific and clinical papers, and has lectured extensively in the United States and abroad. He is best known for his research involving the use of oxidative therapy for immune related disorders.

### ***Main Presentation:***

## **Better Oxygen Utilization Improves Cancer Outcomes by Frank Shallenberger, MD**

In order to both prevent and treat cancer, one must treat the cause. The determining causative factor in all cancers is oxygen utilization, proven over 80 years ago by Dr. Otto Warburg. Dr. Warburg was awarded the Nobel Prize for Medicine for this observation, and his original work has recently been substantiated in several peer reviewed publications.

Dr. Shallenberger has developed a system for measuring oxygen utilization, in use for more than a decade. In that time he has never seen one case of cancer in which oxygen utilization normal. This suggests that maintaining optimum oxygen utilization during prevents cancer. Dr. Shallenberger will be presenting the latest scientific research verifying Dr. Warburg's work. He will also discuss how to measure oxygen utilization, how it can be used to prevent cancer, and how it can be used to maximize the treatment of cancer.

### **Prevention**

Dr. Shallenberger has always believed the best treatment for any disease is not to get it. Unfortunately there is no money in prevention, for two reasons. First, it removes the profit incentive for modern medicine is based on treating but not curing a disease. This system generates profits in direct correlation

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### **Future Speakers:**

**December 20, 2012**

Walter H. Wainright

**January 17, 2013**

**February 21, 2013**

### **About Smart Life Forum**

Smart Life Forum, Inc. is a 501(c)(3) California nonprofit corporation whose primary mission is to provide credible health education to the public with an emphasis on optimal wellness, anti-aging medicine, and longevity.

Annual memberships in Smart Life Forum, Inc. and charitable donations are tax deductible to the extent allowed by law. For information on how to join or make a donation, please visit our website: [www.SVHI.com](http://www.SVHI.com). For questions, please contact Mike Korek at (650) 941-3058.

(MAIN PRESENTATION, *continued*)

with the amount of disease present. The more disease, the more money modern medicine makes - the less disease, the less profit. Perish the thought of no disease at all!

Second, preventing disease is a hard sell. Only about 20% of the population is interested, and of those most are not willing to accept the effort and expense involved. Despite the effort required, in the long run, preventing disease saves money. For example, a recent study in the Boston Globe reported that a couple both entering the 65th year can expect to pay on average \$250,000 by their 75th birthday on medical expenses in addition to expenses paid by MediCare. Despite this expense, in the short run very few people want to pay \$1200-1500 per year to stay healthy. Much less are most people willing to spend time exercising properly and refuse the unhealthy "joys" of living in the first world.

But for those very few like Dr. Shallenberger who have made up their minds that no matter what they have to do they are going to live out their lives without developing a disease, the question then becomes, how? Dr. Shallenberger believes the most important issue in medicine is cancer prevention.

### **Oxygen & Mitochondria**

About ten years ago Dr. Shallenberger developed a system that measures how efficiently a person's mitochondria process oxygen. Although mitochondria perform many crucial tasks, none is more critical than how they process oxygen. When the process is efficient, the cells are bathed in optimal amounts of energy. When it isn't, all cellular activity slows down, and a tide of free radicals form: an obvious recipe for disaster. So what was discovered after testing the mitochondrial function of hundreds of patients every year for this last decade?

First, decreased mitochondrial function starts early. Close to 40% of all those over 40 are already showing a decrease in their mitochondrial efficiency. Some have a very significant decrease. Second, having a significant decrease in mitochondrial function is similar to high blood pressure. It is usually missed, because most of the time there are no symptoms associated with it. Unless it is measured, those who have it will not know they have it. Third, the older we get the

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less efficient our mitochondria become. Forth, once mitochondrial function has become significantly depressed it leads to mitochondrial death, a condition called “mitochondrial decay”. In most cases mitochondrial decay is irreversible. Fifth, if decreased mitochondrial function is discovered in time, before mitochondrial decay has developed significantly it can be reversed. And lastly, and most importantly, in ten years of mitochondrial testing in patients of all ages, Dr. Shallenberger has never seen it to be normal a patient with cancer. Additionally, Dr. Shallenberger has never seen a single person with optimal mitochondrial function ever be diagnosed with any cancer of any kind. How can this be?

### **Cancer & Mitochondrial Function**

The primary cause of cancer is decreased mitochondrial function. This statement is borne out by my experience and substantial corroborating evidence from two sources. First, 70 years ago Otto Warburg showed cancer cells are unique. Even though they live in a high oxygen environment, they choose not to use all that good oxygen. Instead, cancer cells persist on energy production that does not use oxygen. In short, they become an anomaly – a very successful cell type that finds value in spurning the very oxygen that all other cells are so vitally dependent on. Why do they do this, and how did they get to be that way? Since Warburg’s first observations many researchers have believed that it is because cancer cells de facto have abnormal or poorly functioning mitochondria. But recent evidence has shown that incorrect. Cancers cells have perfectly good mitochondria; they just choose not to use them. Why? There are several advantages to turning down mitochondrial function.

The first is that apoptosis, or natural cell death, is regulated through the oxygen processing that occurs in mitochondria. If this process is turned off, apoptosis is turned off, and the cell gets to live without any growth or cell death restraints. The second advantage is that by spurning mitochondrial function cancer cells produce a huge amount of acid. This acid is dumped into the surrounding tissues, and facilitates metastases by breaking down the mesenchymal matrix.

A third advantage is that the marked acidotic environment that is produced by cancers is favorable to cells that have the p53 mutation. Most cancer cells have this mutation. Thus cancer cells have a growth advantage in this environment over non-cancerous cells.

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*(MAIN PRESENTATION, continued)*

The second observation that corroborates low mitochondrial function as being the ultimate cause of cancer is provided by the evidence that all cancers start off in a hypoxic or low oxygen environment. It is a low oxygen environment that first causes a potentially cancerous cell to begin to go through the changes needed to turn it into a cell that finds an advantage in not using oxygen. What cell would be better suited to this purpose than one that is already in a state of decreased mitochondrial function? This is how cancer develops.

First, at a relatively young age decreased mitochondrial efficiency develops secondary to emotional and physical stress, nutritional deficiencies, hormonal deficiencies, a poor diet, decreased circulation, decreased fitness, and cellular toxicity primarily from heavy metals, chronic infections, and smoking. Second, some of these cells exist in an environment where due to basement membranes they are not adequately supplied with oxygen. This is an extremely common occurrence in the body, and is the consistent finding in all cancers in situ. Third, as oxygen availability decreases cells that already have decreased mitochondrial function gain a survival advantage. Lastly, as these cells adapt even more to the low oxygen environment they dramatically increase the acid content of their environment to the point that healthier cells die. After this tipping point, cancer cells take over the environment, and their growth restraints are reduced. Immune system cells cannot function in this hyper acidic environment. Later on, even when they have grown to the point that they need an increasing blood supply for glucose and other nutrients, they still maintain a decreased mitochondrial function because it confers the advantages of metastasis, environmental control, and limited apoptosis.

This is how cancer starts. Dr. Shallenberger maintains it is the primary way in which all chronic disease has its beginnings. The cure to not getting this disease is identifying decreased mitochondrial function at the earliest possible stage, and then correcting it as soon as possible. This means measuring mitochondrial function every year in every person over the age of 35, and correcting it when it begins to decrease. Of course this does nothing for the patient who already has cancer. How can this information be used in the treatment of cancers that already exist? Where is the logic in treating any condition without attending to eliminate the factors that caused it in the first place? But that is just what conventional medicine does as a matter of practice. In cancer therapy, three factors must be attended to: treat the pathology, treat the patient's vitality, and treat the causes. In respect to the third factor all patients with early discovered cancer must do three things: measure their mitochondrial function, initiate treatments to improve it, and re-measure to make sure that the remedies prescribed are actually improving mitochondrial function. In cases of advanced cancer it is often impossible to improve mitochondrial function, which is no doubt why the survival from advanced cancer states is so poor even under the best of circumstances. Once again, in the case of advanced cancer the best treatment is definitely not to get it!

This lecture will expand on these points, and will describe how mitochondrial function can be measured. <http://www.antiagingmedicine.com/index.html>

## ***Meet Stephanie Seneff, BS, PhD.***



Stephanie Seneff is a Senior Research Scientist in the Computer Science and Artificial Intelligence Laboratory at MIT. She received the B.S. degree in Biophysics from MIT in 1968, the M.S. and E.E. degrees in Electrical Engineering in 1980, and the PhD degree in Electrical Engineering in 1985, also from MIT. She is first author on three publications in 2011 in medical journals, relating excess carbohydrate consumption with metabolic syndrome, Alzheimer's disease, and autism.

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### ***Short Presentation:***

## **Let the Sun Shine In!** **by** **Stephanie Seneff**

People today are taught to believe that the sun is dangerous, and that they should make special effort to avoid sun exposure and/or make liberal use of sunscreen. In this talk, Seneff will make the opposite argument: She will argue that the sun is as important to animals as it is to plants, and that we avoid sun exposure to the skin at great peril. People generally believe that the only reason to get sun exposure is to produce vitamin D3, and that they can easily replace that need by taking vitamin D3 supplements or eating vitamin D3 enriched foods. She will argue, however, that there is another factor that has been heretofore overlooked, which is far more important than vitamin D3. The skin produces enormous amounts of cholesterol sulfate, and this process is catalyzed by sunlight. She has identified deficiencies in both cholesterol and sulfate in the blood stream and in all the tissues as a key factor contributing to the major chronic diseases and conditions of modern times, such as heart disease, cancer and autism. She says that all of the alleged benefits of vitamin D3 -- except for catalyzing calcium transport -- are actually benefits of cholesterol sulfate instead. These include improved immunity, and protection from cancer, heart disease and Alzheimer's disease.

In this talk, she will first show from epidemiological studies that sunny places afford increased longevity and better health. She will then discuss the various crucial roles that both cholesterol and sulfate play in the body. Seneff says that cholesterol transport is severely impaired in the absence of sufficient sulfate, and

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*(SHORT PRESENTATION, continued)*

that this is the key pathology in heart disease. She will introduce a hypothesis she has developed in two recently published papers that proposes that lack of sun exposure is a crucial factor in the autism epidemic, mediated through cholesterol sulfate deficiency. After spending some time showing why sunscreen may actually be increasing your risk to skin cancer, Seneff will provide a prescription for simple measures that could be taken to vastly improve health and well-being.

### **Papers on Health**

1. Stephanie Seneff, Glyn Wainwright, and Luca Mascitelli, "Nutrition and Alzheimer's Disease: The Detrimental Role of a High Carbohydrate Diet," *European Journal of Internal Medicine* 22 (2011) 134-140; doi:10.1016/j.ejim.2010.12.017
2. Stephanie Seneff, Glyn Wainwright, and Luca Mascitelli, "Is the Metabolic Syndrome Caused by a High Fructose, and Relatively Low Fat, Low Cholesterol Diet?" *Archives of Medical Science*, 2011; 7, 1: 8-20; doi:10.5114/aoms.2011.20598
3. Stephanie Seneff, Robert Davidson, and Luca Mascitelli, "Might cholesterol sulfate deficiency contribute to the development of autistic spectrum disorder?" *Medical Hypotheses*, in Press, 2011.

Article on Statins: [http://people.csail.mit.edu/seneff/why\\_statins\\_dont\\_really\\_work.html](http://people.csail.mit.edu/seneff/why_statins_dont_really_work.html)

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