# Silicon Valley Health Institute

Host of the Smart Life Forum

NEXT MEETING: Thursday, October 18, 2012, at 7pm

# Dr. Steve Blake, ScD "Nutrition and Alzheimer's Disease"

Anna Coulter

"Simple Healthy Dishes for a Better World"

#### Meet Dr. Steve Blake, ScD.



Steve Blake has a doctorate in holistic health, specializing in nutritional biochemistry. He also has a doctorate in naturopathic medicine and is a neuromuscular therapist. He offers classes at the University of Hawaii on Maui and Oahu. He has taught classes at Stanford University, McLean Hospital, and at Boston University Medical Center. Dr. Blake is the author of 29 books and software tools, including the 2008 McGraw-Hill college

textbook *Vitamins and Minerals Demystified*. He has just completed writing the book *A Nutritional Approach to Alzheimer's Disease*. He is the author of the reference book *Understanding Dietary Fats and Oils: A Scientific Guide to their Health Effects*. He has many other major publications including *Healing Medicine*. He is co-author of *Mosby's Drug Guide for Nurses, 4th Edition* and *Mosby's 2001 Nursing Drug Reference*. Steve Blake programmed the Diet Doctor, software for graphing dietary nutrients. This cutting-edge research software has been instrumental in revealing nutrition information. Dr. Blake lectures widely about the role of nutrition in health. As a professional, registered medical plant specialist, he is well known for

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#### **Presentation Location:**

Cubberley Community Ctr.
Room H1
4000 Middlefield Rd.
Palo Alto, California
Driving directions on our website,
www.SVHI.com

For those who cannot attend we have live streaming and video archiving at

http://www.SVHI.com/live

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Foundation for Mind Being Research (www.FMBR.org)

**October 26 Meeting:** Virginia Hummel & Susan Collins, will be our speakers. Their topic will be: "The Mysteries of the Orb Phenomena",

his databases on alternative remedies. The Herb Doctors database has information from 54 countries and regions worldwide and has over 168,000 footnoted facts. This database was also published by Harcourt Brace as Alternative Medicine. He has taught anatomy & physiology and exercise physiology. He was the director of the Maui Holistic Health Center for seven years. He is often heard on radio and seen on television. He was selected in 2009 by International Biographic Centre as one of the leading health professionals in the world. He and his wife Catherine live on an organic farm on Maui that is powered by the sun. Please contact the author at mail@naturalhealthwizards.com and visit his website for his new book on Alzheimer's disease, www.naturalhealthwizards.com.

#### Main Presentation:

# Nutrition and Alzheimer's Disease by Dr. Steve Blake, ScD

We all know that our diet can influence our chances of getting diabetes and heart disease. What about Alzheimer's disease? We may be able to dramatically reduce our risk of Alzheimer's disease. This talk is based upon information from over 50 medical studies; many of these studies will be displayed on accompanying slides. It is easy and inexpensive to get enough of four crucial vitamins. Further reduction of risk may be possible with a diet high in antioxidant-rich fruits and vegetables. Limiting consumption of *advanced glycation endproducts* limits damage from Alzheimer's disease. It may even be possible to stop the progression of this dementia in the earlier stages.

Are there dietary factors that increase our risk? Yes, the saturated fats found in meat and dairy products have been shown to double our risk of developing Alzheimer's disease. In fact, high blood cholesterol levels at mid-life can triple the risk. On the other hand, mediumchain saturated fats can induce ketosis, energizing depleted brain cells. Let's take a look at how to stop this dreaded disease from developing.

#### How amyloid plaques develop

Brain cells have certain proteins embedded in their surrounding membranes. These proteins are called "*amyloid precursor proteins*." They cause no trouble while in the membranes. The trouble begins

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#### **Future Speakers:**

November 15, 2012 Frank Shallenberger, MD "Use of Oxygen to Prevent Cancer Risks"

**December 20, 2012** 

January 17, 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.

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when *gamma-secretase enzymes* inside brain cells begin snipping off protein fragments from the amyloid precursor proteins. These snipped-off *peptides* (protein fragments) are called *amyloid-beta*. The snipped-off amyloid-beta peptides. These clumps are called *amyloid-beta plaques* and their formation must be stopped to control Alzheimer's disease.

The amount of amyloid-beta formed is controlled by secretase enzymes inside brain cells. When there are more secretase enzymes, we produce more amyloid-beta. If the biosynthesis of secretase enzymes is reduced, then the risk of forming amyloid-beta plaques is also reduced. The interesting part is that we can control the formation of these enzymes and thus control the build-up of amyloid plaque.

We need two B-vitamins to quench the formation of secretase enzymes, and thus the formation of amyloid plaques. Vitamin B12 and another B-vitamin called *folate* work together to create *SAMe* (s-adenosylmethionine). SAMe suppresses the genes, keeping them from producing secretase enzymes inside our brain cells.

Many diets do not supply enough folate. However, it is simple and easy to get enough folate from green leafy vegetables and beans. It is not so easy to get enough vitamin B12 and to absorb it properly. A cheap and safe sublingual vitamin B12 supplement is good insurance against Alzheimer's disease. People with dementia might consider taking SAMe supplements. SAMe needs to be taken in the morning and can react with certain drugs.

Those people who are genetically susceptible to Alzheimer's disease may have an overly active gene appropriately called *presenilin-1*. The presenilin-1 gene makes extra gammasecretase, leading to more amyloid-beta peptides. Adequate amounts of SAMe quench the expression of presenilin-1, so that excess secretase enzymes are not produced. Thus, adequate levels of SAMe limit amyloid-beta plaque production. This is good news for people with Alzheimer's disease in their family.

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Just getting enough folate and vitamin B12 may cut the risk of Alzheimer's disease to one quarter.

#### Advanced Glycation Endproducts

When sugars react with proteins or fats, they can become *advanced glycation endproducts (AGEs)*. The acronym AGE is appropriate as these malformed proteins are a major cause of aging. These AGEs get stuck in the amyloid plaques in the brain. The AGEs and amyloid-beta then create massive amounts of free radicals that cause the cooking and shrinking in an Alzheimer's brain. First, it is essential to get enough folate and vitamin B12 to lower the production of amyloid plaques. Second, it is important to reduce our AGE intake. AGEs are found in certain foods. The presence of water or steam prevents AGEs from forming during cooking. Plant foods are generally safe from high amounts of AGEs because of their water content. When meat, chicken, or fish are fried, broiled, or barbequed, AGEs are produced in large quantities. High amounts of AGEs are also found in cheese. This is because milk sugar reacts with milk protein to produce AGEs during the aging process. **Avoiding fried meat may reduce your risk of Alzheimer's disease by half or more.** 

AGEs can also be made inside our bodies when our blood sugar is high. These AGEs can then circulate to the brain and build up in amyloid plaques. Fortunately, when we eat slow-releasing carbohydrates, we do not tend to create AGEs inside our bodies. Beans, vegetables, and yams are examples of slow-releasing carbohydrate sources that discourage AGE formation. White bread, white rice, and sugary desserts are examples of foods that boost blood sugar and AGE formation.

AGEs pass through the blood-brain barrier using the *RAGE receptor* (receptor for advanced glycation endproducts). The activation of this receptor causes a cascade of low level inflammation in the brain. Inflammation can be reduced by *quercetin*, which is found in many edible plants including onions, grapes, apples, berries, and beans. Many plants reduce inflammation including turmeric, galangal, and chamomile. Inflammation is also reduced by plants containing genistein such as soy, alfalfa sprouts, chickpeas, and peanuts. Cabbage, kale, green tea, Brussels sprouts, and broccoli also have inflammation-reducing components.

Destructive free radicals are produced by advanced glycation endproducts that are embedded in amyloid plaques. Free radicals generated by these AGEs are one cause of the oxidation and inflammation in Alzheimer's dementia.

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Join Us! First time Visitors may attend free of charge.

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Donations welcome: send to, Laurel Corcoran, Treasurer, 314 Grant Ave, Palo Alto, 94306 See website for other payment options. Annual Membership \$60 (per household). Benefit: Access to a community of experienced scientists and physicians who share information and similar interests.

#### Antioxidants

Antioxidants are helpful to lower the risk of Alzheimer's disease as well as other chronic diseases such as cancer and arterial disease. There are two types of antioxidants. Some are found in plant foods. Other antioxidants are created inside our bodies. The antioxidants created inside our bodies need certain minerals to function. Antioxidants are abundant in fruits and vegetables. Vitamin C and carotenes are examples of antioxidants found in plant foods. *Polyphenols* are found in berries and grapes. Not coincidentally, consumption of berries and grapes has been found to lower the risk of Alzheimer's disease.

The most important antioxidant for cell membranes is vitamin E. Vitamin E protects the cell membranes in the brain from free radical oxidation. This is especially important because the cell membranes in the brain are particularly vulnerable to free radical damage due to their high content of fragile *DHA* (*DocosaHexanoic Acid*). The best sources of vitamin E are walnuts, almonds, and sunflower seeds. Most vitamin E supplements are not helpful because they contain only the synthetic form of alpha-tocopherol and little or none of the other tocopherols that make up vitamin E. **Getting enough dietary antioxidants may reduce the risk of Alzheimer's disease by four to eight times.** 

One of the main antioxidants inside our bodies is called *glutathione peroxidase*. Glutathione peroxidase needs the mineral selenium to function. The high amount of free radicals generated in Alzheimer brains have been shown to deplete glutathione peroxidase and selenium. Many nuts and seeds are high in selenium, especially Brazil nuts and brown sesame seeds.

Another important antioxidant enzyme formed within our bodies is called *SOD* (*SuperOxide Dismutase*). SOD needs three minerals to function. Copper, zinc, and especially manganese are needed to quench free radicals with this enzyme. Manganese is lacking in some diets, particularly high-meat diets. Whole grains, spinach, peanut butter, and sunflower seeds are good sources of these three minerals.

#### Reversal of dementia

Two medical plants that have been shown in several double-blind studies to be quite helpful for Alzheimer's patients. *Ginkgo biloba* increases circulation in the brain. Nine double-blind, randomized, placebo-controlled trials showed that ginkgo biloba helped both in delaying the onset of Alzheimer's disease and in treating it. Ginkgo biloba is contraindicated if there are bleeding tendencies or with use of blood-thinning medication.

#### **Videos for Sale**

Smart Life Forum offers an extensive video library of most of our meetings, available on DVD. You may purchase a DVD at the meeting, or request a DVD via email. Please see our website for meeting information and how to order.



Another medical plant used for Alzheimer's disease is *gotu kola* (centella asiatica). One study found that gotu kola lowered amyloid-beta in the hippocampus memory area of the brain. Another study using gotu kola showed an improvement over six months in moderate Alzheimer's disease, rather than the all-too-common degeneration.

Dietary pollutants can influence our risk of dementia. Neurotoxins such as aluminum, lead, and mercury should be avoided. Solvents and pesticides were found to double the risk of Alzheimer's disease.

As we have seen, it is possible to greatly reduce the risk of this dreaded dementia. Please contact the author at mail@naturalhealthwizards.com and visit his website for his book on Alzheimer's disease (includes references). <a href="www.naturalhealthwizards.com">www.naturalhealthwizards.com</a>



# Short Presentation:

# Simple Healthy Dishes for a Better World by Anna Coulter

Anna Coulter will provide in the short presentation some demonstrations of simple healthy dishes made from whole foods. The presentation is all about practical application you can implement in daily life.

Anna Coulter is the founder of the Better World Cuisine. She is dedicated to teaching people about healthy food choices since a close friend died from cancer. The Better World Cuisine program focuses on how to prepare meals which do not cause inflammation. This is important in today's toxic environment. The program also contains informational videos with Dr. Tel-Oren, and it uses principals of Dr. Fuhrman and Dr. Gerson.

GET YOUR FREE RECIPIES AND INFO AT www.BetterWorldCuisine.com.

## Appendix:

## Alzheimer's Disease

# by Stan Field

Alois Alzheimer was born in Bavaria (Germany) in 1864. He was well educated and he received a medical degree in 1887 (age 23 years). He assisted mentally ill women and then took an office in the city mental asylum in Frankfurt am Main. The asylum housed lunatics and epileptics. Another neurologist, Emil Sioli was dean of the asylum. Much of Alzheimer's later work on brain pathology made use of Nissl's method of silver staining of parts of the brain.

Subsequently, Alzheimer published in a magazine about mentally ill people. He never wrote a book about mentally ill people.

In 1901, Dr. Alzheimer observed a patient with strange behavior that included loss of short-term memory. The patient would become his obsession over the coming years. With staining techniques he identified amyloid plaques and neurofibrillary tangles. A speech given in 1906 was the first time the pathology and clinical symptoms of presentle dementia were presented together.

By 1911, his description of the disease was widely used. In 1915, he died of heart failure at the age of 51.

It was subsequently found "Alzheimer's Disease was a <u>fungal</u> infection in the brain. Those pathogens infect the brain via the vagus nerve which links the gut and the brain. The fungi are in blood vessels feeding on sugar (glucose) that nourishes the brain. The other nutrients in the blood vessels needed by the brain become unavailable. This situation causes long and short-term memory and learning to falter and eventually be lost. The cardiovascular system is also detrimentally affected because heart rate and cardiac contraction increase.

However, the immune system is alerted to the fungal infestation and macrophages (eating cells) attack the fungi. To defend themselves, the fungi secrete and cover themselves with **amyloid plaques** which hide the fungi from the macrophages.

The fungi can be defeated by using Curcumin, also known as Turmeric. Curcumin dissolves amyloid plaques so that macrophages can eat fungal pathogens that have been tagged by vitamin D3. Subsequently, short and long term memory is restored.



Stan Field has been avidly studying biochemistry and physiology since 1993 with an aim of staying healthy despite the ever-increasing odds of age-related decline. These publications are written to the best of his ability, and are intended to document any findings that may be useful to interested readers. The publications have neither profit nor political motives. Stan holds a BS in Chemical Engineering [Penn State], 1951 and an MS in Meteorology [US Naval Postgraduate School], 1955