

# Silicon Valley Health Institute

Host of the Smart Life Forum

**Next Meeting: Thursday, February 19, 2015**

## Main Presentation: Bernd Friedlander

*“Methylene Blue in Treatment of Cancer, Aging and Dementia”*

**Secondary Presentation: Steve Fowkes**

*“Parasympathetic Repair”*

### Smart Life Forum

### Presentation Location

Cubberley Community Center

Room H1

4000 Middlefield Road

Palo Alto, California

Directions on our website:

[www.SVHI.com](http://www.SVHI.com)

For those who cannot attend,  
you can view livestreaming at

<http://bit.ly/Zpld3o>

See our archived videos at

<http://tinyurl.com/smartlifeforum>



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## Announcements & Upcoming Events

### Upcoming Speakers:

#### MARCH 2015

Aristo Vojdani, PhD, MSc, CLS - "Food Allergies and Autoimmune Conditions"

#### APRIL 2015

Harry Massey - "Energy Medicine"

#### MAY 2015

Christopher Shade, PhD - "How To Detox"

### Upcoming Foundation for Mind Being Research Meeting (FMBR)

Friday, February 28, 2015 @ 7:30pm

Mark Ireland - "Messages From the Afterlife"

Please visit [www.FMBR.org](http://www.FMBR.org) for more info.

If you have questions please email  
[susanrdowns@hotmail.com](mailto:susanrdowns@hotmail.com).

Thank you.

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## ***Main Presentation Speaker: Bernd Friedlander!***



Bernd Friedlander, D.C., has a Bachelors Degree in Physical Education with emphasis in applied kinesiology from San Francisco State University, and a Doctorate of Chiropractic Degree from the Los Angeles College of Chiropractic. He has been involved in developing nutritional therapies since 1982. As result of his therapeutic formulas, he pioneered the research and use of nutrition and free form amino acids for improving athletic performance as a safe alternative to steroids.

During his career Dr. Friedlander has served as a nutritional and sports injury consultant for athletic members of track teams at UCLA, USC Berkeley, Stanford and many professional track and field athletes from all over the U.S. He has also worked with professional players from the Los Angeles Rams, Los Angeles Raiders, Los Angeles Clippers, Los Angeles Lakers and the San Diego Chargers. In 1984 he served as a chiropractor and a nutritional consultant to numerous members of the U.S. Olympic Track and Field Teams and U.S. Olympic Crew Teams.

In the ensuing years, Dr. Friedlander has also developed a number of proprietary nutritional formulas. These products are designed to maintain and promote health and longevity.

He is an experienced speaker who has lectured across the country for over 30 years on nutrition and anti-aging and has made numerous TV and radio appearances. He has written sports and nutritional articles and has given interviews for numerous magazines.

*(End of Meet Bernd Friedlander)*

## Main Presentation by Bernd Friedlander

*“Methylene Blue in Treatment of Cancer, Aging and Dementia”*

Article written by Susan Downs, MD, ABOIM

There is current research on the use of methylene blue in helping reverse cancer and Alzheimer's Disease. Methylene blue is a compound that in the past was used as a dye for a number of different staining procedures. It was the first fully synthetic drug that was developed, and it was used in the treatment of urinary infections, malaria, and protozoal infections in fish tanks. It has been found to be useful in some cases of hypotension, hypoxia, septic shock, priapism, and methemoglobinemia. It also can neutralize the effects of heparin. Methylene blue combined with light has been used to treat MRSA<sup>1</sup>, resistant plaque psoriasis<sup>2</sup>, AIDs related Kaposi's sarcoma<sup>3</sup>, West Nile Virus<sup>4</sup>, and to inactivate staphylococcus aureus<sup>5</sup>, HIV<sup>6</sup>, hepatitis C<sup>7</sup> and other viruses. It may result in life extension by delaying senescence<sup>8</sup>. Methicillin-resistant Staphylococcus aureus, a bacterium responsible for several difficult to treat infections (due to being resistant to many antibiotics).

### **Oxidative Stress**

Oxidation is the loss of electrons or an increase the in oxidation state by a molecule, atom or ion. For example rust occurs when iron is oxidized in the presence of water moisture. Reduction is the gain of electrons or a decrease in oxidation state. Redox status describes the balance between oxidation (free radicals) and reduction. Oxidative stress occurs when there is an excess of reactive oxygen species/ free radicals compared to antioxidant defenses. Reactive oxygen species are molecules which are hungry to grab electrons from other molecules. An excess in free radicals (oxidative stress) can damage all components of the cell, including proteins, lipids and DNA. Damage to DNA leads to genetic mutations and a depletion of telomeres which help in cell repair. Free radical oxidation of the protein LDL results in atherosclerotic plaque. In humans, oxidative stress is thought to be involved in the development of cancer, Parkinson's disease, Alzheimer's disease, atherosclerosis, heart failure, heart attacks, Sickle Cell disease, autism, infection and chronic fatigue syndrome.

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At low levels, these free radicals are signaling molecules. They also are used by the immune system as a way to attack and kill pathogens. Thus, oxidative stress can cause disruptions in normal mechanisms of cellular signaling. However, reactive oxygen species can be beneficial as they are used by the immune system as a way to attack and kill pathogens.

### **Cancer**

Methylene blue affects cancer by controlling the redox state of the cell. The reduced state of the cell governs the number of structural fibrils in the cell and their strength. Stress and a reduced glycolytic state stiffen the cell structure. Hence, methylene blue plays a role in bringing back the oxidative state which governs cell shape, behavior, metabolism, and interaction with its surroundings. Methylene blue has reducing properties, but can act as an oxidizing agent at high doses. Methylene blue can restore respiration in cells where the mitochondria has been damaged.

Methylene blue induces selective cancer cell destruction (apoptosis) through the NAD(P)H pathway. This pathway maintains an oxidative state and protects the body from the toxicity of the reactive oxygen species and assists in the regeneration of glutathione. Methylene blue can also increase the trans endothelial movement of T and B lymphocytes.

Cancer growth and proliferation is increased by nitric oxide which can mediate DNA damage, increase metastases, and affect angiogenesis. In cancer, nitric oxide plays a variety of roles which are at times contradictory. On one hand, nitric oxide is involved in different tumour etiological mechanisms as well as promoting tumor growth. Nitric oxide blocks oxidative energy production, activates the characteristics of cancer metabolism and anaerobic glycolysis creating hypoxia. Yet, nitric oxide is critical in the tumoricidal activity of the immune system. An excess of nitric oxide increases the permeability of blood vessels in cancer. Methylene blue can inhibit vessel permeability along with Vitamin C.

### **Alzheimer's Disease**

Methylene blue is studied as an approach to slowing if not reversing the rampage of Alzheimer's disease. The belief is that methylene blue disrupts the aggregation and even reverses the aggregation of tau protein, a contributor to the development of Alzheimer's Disease. Tau protein accumulates and turns into a cascade that becomes progressively worse. Once methylene blue reduced tau to

*(Continued on Next Page)*

smaller forms, the tau fragments can be degraded normally, and the tau back up starts to clear out. There are questions on whether methylene blue can cross the blood-brain barrier to access the brain. Hence it would have to be given at high doses which could run into difficulties with absorption and side effects (such as gastrointestinal side effects, such as diarrhea). Methylene blue has an effect on mitochondrial function. By enhancing complex IV which is inhibited in Alzheimer's and Parkinson's diseases, methylene blue has a second benefit for both Alzheimer's and Parkinson's patients.

### **Cautions**

Before using methylene blue, consultation with a licensed health care professional is recommended. Methylene blue should not be used with persons who have a G6PD deficiency as it may cause hemolytic anemia. It should be used with caution for persons with severe kidney disease. There are many medications that would prohibit the use of methylene blue (such as medications which increase serotonin). Another known side effect of methylene blue, a source of endless amusement to pranksters, is that it turns urine blue.

*(End of Main Presentation)*

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## ***Secondary Presentation Speaker: Steve Fowkes!***



Steven William Fowkes is an organic chemist with broad knowledge of biochemistry, neurochemistry, nutrition, metabolism and nanotechnology. He is also a nutritional consultant, formulation consultant, author, editor, public speaker, inventor, and expert witness. He is the moderator and blogger for Project Wellbeing ([www.projectwellbeing.com](http://www.projectwellbeing.com)), chief chemist of eCycle Systems, executive director of Cognitive Enhancement Research Institute (CERI) and Co-Founder and chief Science Officer of Nanopolymer Systems Corporation. He has numerous publications (the references can be sent upon request) and in the editor's opinion is the most brilliant man she has encountered.

*(End of Meet Steve Fowkes)*

## **Secondary Presentation** **by Steve Fowkes** *“Parasympathetic Repair”*

The autonomic nervous system is not just a matter of a balance between the simple sympathetic and parasympathetic nervous systems of earlier life forms. Mammals have developed a second (myelinated) parasympathetic circuit that connects us to our emotions and perceptions. Understanding this revolutionary parasympathetic development can help us be more effective at cultivating health and happiness.

Steve has taken a public position that Alzheimer’s disease, autism and sudden infant death syndrome are all the same fundamental condition, only manifesting differently at different stages of development. In this talk, Steve will discuss the newly documented association between autoimmune disease in mothers and the subsequent development of autism in their children, and how this relates to Alzheimer’s disease, and vaccinations. This is a highly controversial subject with high political investment in the USA. Come hear what the US government denies.

*(End of Secondary Presentation)*



### **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 Susan Downs at [susanrdowns@hotmail.com](mailto:susanrdowns@hotmail.com).

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