

# Silicon Valley Health Institute

*Host of the Smart Life Forum*

**Next Meeting: Thursday, June 21, 2018**

## Main Presentation by Thomas Seyfried, PhD

*“Press-Pulse: A Novel Therapeutic Strategy for Cancer”*

## Secondary Presentation

**by Christine Rosche, MPH, CNS, CBT**

*“Updates on Gut Microbiome in Health and Disease”*



*Meet Thomas Seyfried*  
Page 3



*Meet Christine Rosche*  
Page 5

### 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)

### Newsletter Table of Contents

Page 2 - Announcements/Upcoming Events

Page 3 - Meet Thomas Seyfried, PhD!

Page 4 - Main Presentation: *“Press-Pulse: A Novel Therapeutic Strategy for Cancer”*

Page 5 - Meet Christine Rosche, MPH, CNS, CBT!

Page 6 - Secondary Presentation: *“Updates on Gut Microbiome in Health and Disease”*

Page 12 - Become a member of the SLF Community!

# Announcements & Upcoming Events

## Upcoming Speakers:

JULY 2018

Michelle Perro, MD  
and Vincanne Adams, PhD  
*"GMO: What It Does To Our Children and Population"*

AUGUST 2018

Dr. Adelson  
*"Stem Cells"*

SEPTEMBER 2018

Dr. Adiel Tel-Oren, MD, DC, LN, DACBN,  
DABFM, DABOM, CCN, FABDA

OCTOBER 2018

Steven Blake

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

Friday, June 22 @ 7:30pm

**Leo Madrid**

Unity Community Church  
Y.E.S. Hall

3391 Middlefield Rd, Palo Alto, CA

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

## SLF Members

### **BOARD OF DIRECTORS**

Filomena Trindade, MD, MPH - Secretary  
Bill Grant - Publicity, Treasurer  
Susan Downs, MD, ABOIM - President  
Larry Weissenborn - Sound  
Robert Menkemeller, RNC

### **FOUNDER**

Kathryn Grosz

### **ADVISORY BOARD**

Dave Asprey  
Bill Grant, PhD  
Phillip Lee Miller, MD  
Alan P. Brauer, MD  
Bernd Friedlander, DC

### **MEETING MODERATORS**

Robert Menkemeller, RNC  
Randy Kunkee

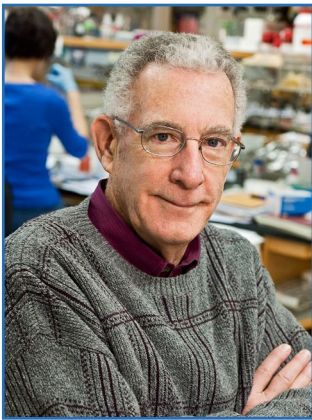
### **VOLUNTEERS**

Rob Baum, Assistant Editor  
Ruthellen Dickinson, Greeter, Memberships  
Susan Downs, Newsletter Editor/Prgm Editor  
Steve Fowkes, Technical Advisor  
Bill Hurja, Refreshments  
Rob Larson, Equipment Manager  
Robert Menkemeller, Website  
Larry Weissenborn, Audio Engineer  
Sandra Yow, Newsletter Layout  
Pamela Zuzak, Video & Book Sales

A **Board Member** position and a **Membership Chair** position are available. Interested persons can contact any board member or email **Susan** at: [susanrdowns@hotmail.com](mailto:susanrdowns@hotmail.com).  
Thank you.

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

## *Main Presentation Speaker: Thomas Seyfried, PhD!*



Thomas N. Seyfried is Professor of Biology at Boston College, and received his Ph.D. in Genetics and Biochemistry from the University of Illinois, Urbana, in 1976. He did his undergraduate work at the University of New England where he recently received the distinguished Alumni Achievement Award. He also holds a Master's degree in Genetics from Illinois State University, Normal, IL. Thomas Seyfried served with distinction in the United States Army's First Cavalry Division during the Vietnam War, and received numerous medals and commendations. He was a Postdoctoral Fellow in the Department of Neurology at the Yale University School of Medicine, and then served on the faculty as an Assistant Professor in Neurology. Other awards and honors have come from such diverse organizations as the American Oil Chemists Society, the National Institutes of Health, The American Society for Neurochemistry, and the Ketogenic Diet Special Interest Group of the American Epilepsy Society. Dr. Seyfried previously served as Chair, Scientific Advisory Committee for the National Tay-Sachs and Allied Diseases Association. He recently received a Lifetime Achievement Award from the Academy of Complimentary and Integrative Medicine, and the Uncompromising Science Award from the American College of Nutrition for his work on cancer. He presently serves on several editorial boards, including those for Nutrition & Metabolism, Neurochemical Research, the Journal of Lipid Research, and ASN Neuro. Dr. Seyfried has over 180 peer-reviewed publications and is author of the book, *Cancer as a Metabolic Disease: On the Origin, Management, and Prevention of Cancer* (Wiley Press). His full list of peer-reviewed publications can be found on PubMed ([www.ncbi.nlm.nih.gov/pubmed/?term=Seyfried+TN](http://www.ncbi.nlm.nih.gov/pubmed/?term=Seyfried+TN)).

*(End of Meet Thomas Seyfried!)*

## Main Presentation

by Thomas Seyfried, PhD

### *“Press-Pulse: A Novel Therapeutic Strategy for Cancer”*

Dr. Seyfried will discuss his latest research in treating and preventing cancer. In addition to his research on the ketogenic diet, he adds a new component which adds drugs and procedures that create both chronic and intermittent acute stress on tumor cell energy metabolism, while protecting and enhancing the energy metabolism of normal cells. He calls this the “press-pulse” therapeutic strategy for cancer management is an approach which includes the calorie restricted ketogenic diets used together with drugs and procedures.

A shift from respiration to fermentation is a common metabolic hallmark of cancer cells. As a result, glucose and glutamine become the prime fuels for driving the dysregulated growth of tumors. Press disturbances produce chronic stress, while pulse disturbances produce acute stress on populations. It was only when both disturbances coincide that population reduction occurred.

This general concept can be applied to the management of cancer by creating chronic metabolic stresses on tumor cell energy metabolism (press disturbance) that are coupled to a series of acute metabolic stressors that restrict glucose and glutamine availability while also stimulating cancer-specific oxidative stress (pulse disturbances). The elevation of non-fermentable ketone bodies protect normal cells from energy stress while further enhancing energy stress in tumor cells that lack the metabolic flexibility to use ketones as an efficient energy source. Mitochondrial abnormalities and genetic mutations make tumor cells vulnerable metabolic stress.

Optimization of dosing, timing, and scheduling of the press-pulse therapeutic strategy will facilitate the eradication of tumor cells with minimal patient toxicity. This therapeutic strategy can be used as a framework for the design of clinical trials for the non-toxic management of most cancers.

*(End of Main Presentation)*

***Secondary Presentation Speaker: Christine Rosche, MPH, CNS, CBT!***



Christine Rosche, MPH, CNS, CBT is a Board Certified Nutrition Specialist and Biofeedback Therapist with 25 years experience in the health care field.

She developed and taught courses at Stanford University Medical Center and Heart Disease Prevention Program and is the author of 2 books.

She has maintained a private practice in Palo Alto since 1980 and specializes in functional testing and integrative approaches for digestive issues including GERD, malabsorption issues, gut permeability, IBS, IBD, Crohns, constipation and inflammatory bowel disease.

As a licensed Heart Math™ Trainer, Christine is pioneering the integration of Heart Math™ Heart Rate Variability Biofeedback Training with Custom Nutrition and Gut Healing Protocols.

[www.digestivehealth.center](http://www.digestivehealth.center)

650-856-3151

*(End of Meet Christine Rosche!)*

## Secondary Presentation

by Christine Rosche, MPH, CNS, CBT

### *“Updates on Gut Microbiome in Health and Disease”*

- \* Latest Research on Gut Bacteria and Alzheimer’s/Dementia
- \* Which probiotics are essential to absorb which nutrients
- \* The role of functional testing for a healthy Microbiome
- \* The role of Gut Bacteria in the prevention and treatment of certain cancers
- \* The role of Gut Bacteria and Permeability in Neurodegeneration, including Alzheimer’s and Dementia

#### **Root Cause, Functional Approach to Gut Health**

The average human body contains about 30-40 trillion cells and 40 trillion microorganisms including bacteria, fungi and viruses. These microorganisms make up one to three percent of our body weight. For decades it was impossible to accurately assess how many different strains of microorganisms we play host to. A few hundred have been isolated at most.

Most chronic health conditions can be traced back to the gut and the microbiome. Microbes interact with one another within the community they live in - our Gut. Gut Bacteria change in concentration depending on their surroundings — diet, lifestyle, stress factors, use of medications/antibiotics and environment.

The use of pre-biotic foods such as pistachios, asparagus, cultured yogurt, kim chi, beet kvass, garlic and onions are critical to make sure your probiotic gut bacteria thrive and survive.

The key factor of how your gut microbiome determines whether or not you will be able to deal with various illnesses is the level of inflammation in your body.

*(Continued on Next Page)*

## **Gut Bacteria Has A Major Impact On Obesity**

Changes in the bacterial strains in the gut have been shown to lead to significant changes in body weight, after only a few days. When lean germ-free mice receive a transplant of gut microbiota from conventional/fat mice, they acquire more body fat quickly without even increasing food intake, because their gut bugs influence hormone production (like insulin), nutrient extraction and fat (adipose tissue) storage. Specific gut bacteria strains such as *L. Paracasei* and *B. longum* support liver function and weight loss.

Recently developed gene sequencing methods have enabled the Human Microbiome Project in partnership with the National Institutes of Health, to differentiate human and microbial DNA. The facts are now in: more than 10,000 microbial species occupy the human ecosystem.

This astonishing variety of microbes contributes more genes to aid human survival than the body itself. For example, genes carried by bacteria in the gastrointestinal tract break down the proteins, lipids and carbohydrates in our diet into nutrients we can absorb. According to Lisa Proctor, PhD of the Human Microbiome Project, these microbes produce beneficial compounds like vitamins and anti tumor/anti-inflammation compounds that our genome cannot produce.

Our microbial landscape varies enormously across the human body. The mouth, nose, skin, lower intestine and vagina have wildly diverse microbial ecosystems - as different as the Amazon rainforest and the Sahara desert.

Back in 1906 the French Pediatrician Henri Tissier noticed that babies fed formula were more prone to diarrhea than those who were breast fed. They had fewer Probiotic bifido bacteria in their stools and when they were given that bacteria, it restored their health.

Probiotic is derived from the Greek meaning "for biological life". According to recent research, probiotics are known to assist in the production of short- chain fatty acids, lower gut pH, stimulate the mucosal barrier of the gut, modulate the immune system and make anti tumor and anti inflammatory factors. They induce the secretion of immunoglobulin A, an antibody necessary for the normal immune function of mucous membranes and enhance the ability of T cells to fight infection.

*(Continued on Next Page)*

There are many examples of the benefits of probiotics. Lactobacillus species produces enzymes to digest and metabolize proteins and carbs; helps to synthesize B Vitamins and Vitamin K; enhances innate and acquired immunity. L. Acidophilus species supports immune health, relieves gas and diarrhea, supports vaginal and urinary tract health in women. Saccharomyces Boulardi - highly effective against C. Diff infections, protects against E. Coli, helps prevent relapses of Crohn's disease and mitigates ulcerative colitis and inflammatory bowel disease.

Source: <https://www.wddty.com/magazine/2018/april/the-good-gut-bacteria-guide.html>

### **Latest Research - Cancer and the Microbiome**

Recent research published in the journal of Cancer Biol Therapies, 2006, 5, 1265-9 demonstrates clinical evidence that probiotics and prebiotics may aid in the prevention and treatment of certain cancers, including colon cancer, the second leading cause of cancer death in the US. In addition to decreasing inflammation and boosting the immune system, probiotics bind to toxins and food based carcinogens and reduce bacterial enzymes in the colon that promotes cancer. According to Ann Gastroenterol Surgery, 2017; 1"99-104 an imbalance in the gut microbiome triggers inflammation in the lining of the esophagus (the mucosa) and eventually the formation of tumors there.

Lab studies have suggested that probiotics may be useful for prevention of esophageal adenocarcinoma. Promising recent research published in Proc Natl Acad Sci USA, 2016; 113:E1306-15, demonstrates that probiotics can slow the growth of liver cancer by impeding the creation of new blood vessels to feed the tumor. According to SciRep, 2016 the microbiome on the tongue of patients with liver carcinoma differs from that of healthy people, giving more evidence that probiotics can benefit those patients.

### **Brain Disorders**

There are multiple neuro-chemical and neuro-metabolic pathways between the central nervous system/brain and microbiome/digestive tract that allow communication, affecting our memory, thought patterns and reasoning. Differences in our microbial communities might be one of the most important factors in determining if we deal with cognitive disorders in older age.

*(Continued on Next Page)*



A 2017 study by the University of Pennsylvania found a significant relationship between the gut microbiome and the formation of cerebral cavernous malformations (CCMs), which can cause stroke and seizures. Researchers observed that in mice, the activation of TLR4, a receptor for lipopolysaccharide (LPS) - a bacterial molecule - on brain endothelial cells by LPS greatly accelerated CCM formation. When mice were then observed in a germ free environment, CCM formation greatly decreased, illustrating the effects of bad bacteria and the microbiome on cerebral cavernous malformations.

### **Gut Brain Connection**

Your diet affects your microbiome and neurotransmitter activity, and therefore how you feel, your ability to handle stress and your energy levels. Dietary changes over the last century — including industrial farming, the use of pesticides and herbicides, and the degradation of nutrients in foods — are the primary forces behind growing mental health issues as depression.

Low nutrient availability, inflammation and oxidative stress affect the neurotransmitters dopamine, norepinephrine and serotonin, which control your moods, ease tension and impact alertness.

A 2017 study illustrated the correlation between gut health and depression. Researchers studied 44 adults with irritable bowel syndrome and mild to moderate anxiety or depression. Half of the group took the probiotic *Bifidobacterium longum* NCC3001, and the other was given a placebo. Six weeks after taking probiotics daily, 64 percent of the patients taking the probiotic reported decreased depression. Of the patients taking a placebo, only 32 percent reported decreased depression.

Certain beneficial bacteria lower inflammation, which lessens the severity of allergic reactions, asthma, food allergies and infections of the respiratory tract. This means stronger defense against seasonal allergies or food allergies and more relief from coughing, colds, the flu or a sore throat. An anti-inflammatory diet helps prevent susceptibility to leaky gut syndrome and helps eliminate phlegm or mucus in the lungs or nasal passages, which makes it easier to breathe.

*(Continued on Next Page)*

Autism, ADD and ADHD have been associated with poor gut health, especially in infants and children. We are continuing to learn how our neurodevelopment, cognition, personality, mood, sleep and eating behaviors are all affected by the bacteria that reside within our guts. There seems to be an association between diet and psychiatric disorders due to metabolites of dietary components and enzymes encoded in our human genome that inhabit our guts. One of the most important factors seems to be establishing a healthy microbiome from birth, including a vaginal delivery ideally and being breastfed, which populates the newborn's gut with the mother's healthy bacteria.

### **Alzheimer's Disease and Dementia**

By studying both healthy and diseased mice, researchers found mice suffering from Alzheimer's have a different composition of gut bacteria compared to mice that are healthy. The researchers also studied Alzheimer's disease in mice that completely lacked bacteria to further test the relationship between intestinal bacteria and the disease. Mice without bacteria had a significantly smaller amount of beta-amyloid plaque in the brain. Beta-amyloid plaques are the lumps that form at the nerve fibers in cases of Alzheimer's disease.

To clarify the link between intestinal flora and the occurrence of the disease, the researchers transferred intestinal bacteria from diseased mice to germ-free mice, and discovered that the mice developed more beta-amyloid plaques in the brain compared to if they had received bacteria from healthy mice.

“Our study is unique as it shows a direct causal link between gut bacteria and Alzheimer's disease. It was striking that the mice which completely lacked bacteria developed much less plaque in the brain”, says researcher and Associate Professor Frida Fåk Hällenius, at the Food for Health Science Centre, (Lund University, Lund, Sweden).

Source: <https://neurosciencenews.com/microbiota-alzheimers-6096/> and <https://www.lunduniversity.lu.se/article/gut-bacteria-may-play-a-role-in-alzheimers-disease>

Research from a team at the University of Wisconsin School of Medicine and Public Health has compared the gut microbiome of 25 human subjects with Alzheimer's disease to 25 cognitively healthy human subjects.

*(Continued on Next Page)*

"By using DNA sequencing to take a 'snapshot' of gut bacterial composition, we found that individuals with dementia had decreased microbial richness and diversity in their gut microbiome compared to people without a diagnosis of dementia," says Nicholas Vogt, first author on the study.

This is the first research to study a whole microbiome snapshot of patients with Alzheimer's disease. It follows on from some compelling research in 2016 that suggested gut bacteria plays a role in the accumulation of amyloid plaques, a buildup of proteins characteristic of a number of diseases including Alzheimer's, diabetes and Huntington's disease.

<https://neurosciencenews.com/microbiota-alzheimers-6096/>

### **Testing and Treatment with Customized Strains**

It is essential to customize the probiotics and the prebiotics to the individual patients and re test to make sure the strains are able to thrive and survive in their gut

We test to find the root cause of problems, the functional and personalized approach to health. Customized probiotics and strains that are shown on your stool and gut tests to be missing or deficient will be supplemented.

In my clinic, we do comprehensive stool and urine assessments by the top labs in the country to look at comprehensive parasitology, mycology, fungi, bacteria, we determine exactly which beneficial flora is there and which imbalanced, commensal dysbiotic flora along with yeast overgrowth, critical digestion absorption markers, very important inflammation markers, SigA gut immune, SCFA markers and all intestinal health markers including Occult Blood and Stool pH.

We recommend Independent Assay tested for Viability Probiotic strains that are customized to the individual patient along with the prebiotic and individualized nutrition and lifestyle recommendations.

In this talk I will present case studies of patients with Ulcerative Colitis, Anxiety and Depression, Parkinson's and Diabetes.

*(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).

### **Become a Member!**

Smart Life Forum, Inc. (SLF) is a California qualified 501(C)(3) nonprofit corporation organized under state law for educational and scientific purposes as a public benefit corporation. Please make your check payable to “Smart Life Forum, Inc.” Please provide your email address as well.

**Annual Membership \$60 (per household)**

**\$10 per Meeting**

**Benefits:** Access to a community of experienced scientists and physicians who share information and similar interests.

**Join Us!** First time Visitors and Non-Members \$10 per meeting (at door),  
Or sign up for an Annual Membership for \$60 per year.

Smart Life Forum, Inc. (SLF) is a California qualified 501(C)(3) nonprofit corporation organized under state law for educational and scientific purposes as a public benefit corporation. Please make your check payable to "Smart Life Forum, Inc."

**Annual Membership \$60** (per household).

**Benefit:** Access to a community  
of experienced scientists and physicians  
who share information and similar interests and  
FREE admission to all meetings!

**Donations are welcome!**

Please send your donations to:  
Bill Grant  
1745 Pacific Ave. APT 405  
San Francisco, CA 94109-2401

**Renew your membership today!**

**Complete this form & bring to a future meeting with payment:**

**\$60/year full membership (maximum 4 per household)**

Yes, you can renew and pay in person at a meeting.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE: \_\_\_\_\_ PHONE 2: \_\_\_\_\_

EMAIL: \_\_\_\_\_

Total amount authorized or enclosed: \$ \_\_\_\_\_, (check applicable boxes):

\$60/yr Family membership (4 max in household)

Donation: \$ \_\_\_\_\_

Please make your check payable to "Smart Life Forum, Inc."

Please send your donations to:

Bill Grant

1745 Pacific Ave. APT 405

San Francisco, CA 94109-2401