# Silicon Valley Health Institute

**Host of the Smart Life Forum** 

Next Meeting: Thursday, January 19, 2017

Main Presentation: Joseph Smith, DC, DACNB, FACFN "Food Sensitivities"

**Second Presentation: Christine Rosche, MPH, CNS, CBT**"The Gut Brain Connection"

# Smart Life Forum Presentation Location

Cubberley Community Center

Room H1

4000 Middlefield Road

Palo Alto, California

Directions on our website:

www.SVHI.com



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# Announcements & Upcoming Events

### **Upcoming Speakers:**

FEBRUARY 2017 Dr. Tsu-Tsair Chi "Cancer"

MARCH 2017
Sara Russell
"The Hazards of Mercury Toxicity"

APRIL 2017 Andrew Campbell "Toxins"

## <u>Upcoming Foundation for Mind Being</u> <u>Research Meeting (FMBR)</u>

Friday, January 27, 2017 @ 7:30pm

"Lucid Dreaming's Extraordinary Potential for Personal and Spiritual Growth"

with Robert Wagoner

Unity Community Church Y.E.S. Hall 3391 Middlefield Rd, Palo Alto, CA

Please visit www.FMBR.org for more info.

If you have questions please email susanrdowns@hotmail.com.

Thank you.

#### News Alert!

The board has decided to provide transcripts for our speakers' presentations. These transcripts will be provided for members only, and are expected to increase internet traffic to our site. These transcripts are provided by a generous donation by our chair, Dave Asprey. We will be working on these transcripts, so stay tuned!

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## Main Presentation Speaker: Joseph Smith, DC, DACNB, FACFN!

Dr. Joseph P. Smith is a board-certified chiropractic neurologist through the American Chiropractic Neurology Board and a fellow of the American College of Functional Neurology, with specialties in neurodegeneration and child developmental disorders. He has earned diplomate status through the International College of Applied Kinesiology.

Dr. Smith earned his doctor of chiropractic degree from Northwestern Health Sciences University and his bachelor of science in psychology from North Dakota State University. He has been speaking internationally on the topics of applied kinesiology and functional medicine since 2008. He held an adjunct faculty position at the University of Mary in Fargo, North Dakota until 2008.

He is the founder of Atlas Institute, a nonprofit organization that educates the public on nutritional concepts and controversies and has two offices in California, located in Fairfax and San Francisco. Dr. Smith is a dedicated learner and is constantly undergoing additional education in the fields of nutrition and neuroendocrine immunology. He believes each patient has a unique set of circumstances needing a specific plan and lifestyle changes for optimal health. His focus is on functional blood chemistry analysis; nutritional endocrinology with an emphasis on thyroid imbalances; neurotransmitter and brain health; immunology; and support of autoimmune disorders.

(End of Meet Joseph Smith!)

# Main Presentation by Joseph Smith, DC, DACNB, FACFN

"Food Sensitivities"

Food sensitivities are very common in our society, although most people don't know if they have any. One of the best ways to discover your food sensitivities is to do a food elimination diet. You do this by removing a food from your diet for a minimum of six weeks (120 days is best), then reintroduce the food and see how you feel. Some of the most common food sensitivities are: gluten, wheat, dairy, corn, soy, and chocolate, but it could be any food. Food sensitivities have been associated with some diseases. A study on multiple sclerosis, published in Neurology 2001 states, "The authors describe 10 patients with gluten sensitivity and abnormal MRI. All experienced episodic headache, six had unsteadiness, and four had gait ataxia. MRI abnormalities varied from confluent areas of high signal throughout the white matter to foci of high signal scattered in both hemispheres. Symptomatic response to gluten free diet was seen in nine patients." This study shows that 9 out of ten patients diagnosed with abnormal brain MRI's diagnosed with M.S. showed dramatic improvement with a 30 day gluten free diet.

Dementia is has been linked to gluten allergies. Lancet 1999 stated "High levels of circulating antigliaden antibodies (gliaden is a protein sub fraction of gluten) were found in 57% of patients with neurological dysfunction and early stage dementia. According to the European Journal of Gastroenterology 1998, "celiac disease patients (a gluten allergy) have a ten times increase of auto immune thyroiditis." If you have autoimmune thryroiditis, but you don't have celiac disease, it's a safe assumption that you have a gluten sensitivity and it should be completely eliminated from the diet.

Type 1 diabetes has been associated with a dairy sensitivity. The New England Journal of Medicine, 1992 states, "Studies have suggested that bovine serum albumin is the milk protein responsible for the onset of diabetes... Patients with insulin- dependent diabetes mellitus produce antibodies to cow milk proteins that participate in the development of islet dysfunction... Taken as a whole, our findings suggest that an active response in patients with IDDM (Insulin-Dependent Diabetes Mellitus, to the bovine protein) is a feature of the autoimmune response." According to Diabetes, June 2000 "high level consumption of cow's milk during childhood (<0.5 liters daily) increases the risk of type 1 diabetes 3 fold among siblings of affected children." They also found that when they had the HLA-DQB1 susceptibility marker the risk increased to 5.4 times." Diabetes Care, December 1994 found that the consumption of cows milk in nine Italian regions was directly correlated with the incidence of Type 1 diabetes. A lack of stomach acid has been associated with food sensitivities. A study of the use of medications to reduce stomach acid has been found to increase food allergies. The FASEB Journal, 2005 stated, "we have demonstrated that anti-ulcer drugs, such as H2-receptor blockers and proton pump inhibitors, promote the development of immediate type food allergy toward digestion-labile proteins in mice...Thus, the relative risk to develop food-specific IgE after anti-acid therapy was 10.5 (95% confidence interval: 1.44-76.48)." Medications will do this but if your body doesn't produce it's own stomach acid you will increase your risk of food allergies.

#### **Editors Addendum**

Food sensitivities can lead to inflammation and set off a long chain of adverse reactions leading to chronic illnesses. Foods need to be broken down for the body to use. When foods are not broken down and when the gut is permeable to allow undigested proteins into the blood stream, the body produces antibodies against the undigested protein that seep out of the gut. Through cross mimicry, these antibodies may also attack different parts of the body.

The first part of avoiding the adverse reactions of food sensitivities is to remove the offending food that is firing the immune response. The second step is to heal the GI system and to insure foods are properly digested.

The gastrointestinal tract directly interacts with the external world through the foods we eat. The gut lining allows us to absorb nutrients but also protects the body from foreign invaders such as bacteria. When the microbiome is not balanced, single cell barrier is disrupted with holes allowing unwanted proteins to enter the blood stream. These proteins are seen as foreign and the body can launch an autoimmune response against them.

The digestive enzymes insure that proteins, fats and carbohydrates are broken down. The digestive enzymes start in the stomach with hydrochloric acid and pepsin. The enzymes in the small intestines finish the digestive process breaking down the eaten foods into amino acids and sugars. If foods are not broken down to the smallest particles, the larger particles may not be recognized by the gut immune system which can form antibodies against the undigested particles thus launching an autoimmune reaction.

Hence, steps for mucosal health and food tolerance include:

Good diet including:

- Organic non processed food
- Fermented foods
- High fiber
- Low / moderate fat
- Low sugar and carbohydrates
- An elimination diet can be considered.

Microbial Environment Protection

Proper Hepatic Clearing

• Support phases I, II and III detoxification

You can learn more in an interview on *Occupy Health* on VoiceAmerica.com (the Health and Wellness Channel) in early March.

(End of Main Presentation)

# Secondary Article Written by Susan Downs, MD, ABOIM

"The Gut Inflammation and Health"

This is a report from December 2016 A4M annual meeting: David Perlmutter, MD Presentation. The materials are taken from his lecture and his latest book, The Brain Maker.

Chronic diseases for which there are inadequate treatments are increasing in the Western world. While genetics play a role in diseases, genetics and DNA are not our destiny. Diet and life style choices can change DNA through epigenetics. Ninety-nine percent of our DNA is microbial DNA which is in the gut. Hence, the gut has a large role in genetic expression, and many of these diseases can start in the gut.

#### Inflammation

Inflammation is major contributing cause to most diseases. Inflammation leads to conditions such as obesity, diabetes, cancer, strokes, autism, depression, ADHD, asthma, arthritis, coronary artery disease, multiple sclerosis, and Parkinson's and Alzheimer's disease. Chronic inflammation leads to a decrease in hippocampal neurogenesis, brain inflammation and disease and ultimately cognitive decline. Chronic intestinal inflammation and proinflammatory cytokines lead to the same end.

#### The Gut

The gut has many roles. It:

- Aids in digestion and the absorption of nutrients
- Provides a physical barrier against potential invaders such as bad bacteria, harmful viruses and injurious parasites.
- Provides the first line of defense against many toxins

- Serves as the biggest immune system organ
- Produce and release important enzymes and chemicals for the brain.
- Helps handle stress through the flora's effects on your endocrine-hormonal-system.

#### Microbial Diversity

It is important that the gut bacteria (or microbiome be balanced and well diversified). Reduced microbiome diversity has been linked to increased gut permeability, autoimmune, metabolic and inflammatory diseases, diabetes (types 1 and 2), obesity, Alzheimer's, MS, autism, colorectal cancer, inflammatory bowel disease.

#### Leaky Gut

When the gut microbiota is altered or disrupted, it is referred to as "dysbiosis," which results in the gut becoming inflamed and permeable ("leaky gut"). A leaky gut allows substances to pass through the walls of the gut into the blood stream. This leads to inflammation and oxidative stress - triggers for chronic diseases. A permeable gut also can start an autoimmune response because antibodies are formed against the food proteins that pass through the wall of the gut.

LPS (Lipopolysaccharide, an endotoxin) is a major component of cell membrane of Gram (-) bacteria. It protects bacteria from being digested by the bile salts of the gall bladder. Normally the intestinal tight junctions prevent the LPS from entering the blood stream. However, when the gut becomes permeable and LPS crosses into the blood stream, LPS turns on inflammation pathways and has been linked to major depressive disorder, sporatic ALS, early ALS, Alzheimer's Disease and autism. Decreasing LPS can decrease inflammation which can increase the SCFA butyrate which is a beneficial bacteria.

#### Obesity

Two thirds of people in the US are either obese or overweight. Obesity can result from the composition of the microbiome and from a leaky gut.<sup>2</sup> The microbiome transferred from a thin twin mouse to more obese twin results in a weight change in the recipient twin.

Obesity is associated with inflammation, decreased hippocampal volume and cognitive decline. 3 A larger waist to hip ratio may lead to neurodegenerative, vascular or metabolic processes that affect brain structures underlying cognitive decline and dementia.<sup>4</sup>

#### Dementia

The costs for treating dementia patients alone is approximately \$200 billion per year in the US. Two key mechanisms that lead to brain degeneration are chronic inflammation and the action of free radicals.

With gut leakage, inflammation and autoimmune triggers become systemic and can lead to neuro inflammation in the brain. This activates the cerebral microglial cells which set off a cascade leading to inflammation of the brain. Unlike immunity cells in the body which can be turned off by T regulatory cells, the microglial cells in the brain cannot be turned off.

The gut brain axis or brain gut axis is a bi-directional communication system with pathways encompassing enteric nervous system and the vagus nerve. A large part of the brains output goes to the Vagal nerve. One of the first signs of the brain not firing well is poor vagal activity which manifests as decreased pancreatic enzyme secretion, poor gallbladder function and poor gut function over all (Chris Kresser podcast).

Differences in microbial diversity can heal explain patterns of age-adjusted Alzheimer's rates between countries. Increasing microbiota diversity was found to be inversely related to the incidence of age-adjusted Alzheimer's Disease. Alzheimer's disease incidence decreased with increasing parasitic stress.

#### Mental Illness

More than 26% of the population suffers from a diagnosable mental disorder. The microbiome plays an instrumental if not causative factor in mental disorders.

Depression occurs in a quarter of women in their forties and fifties. Autoimmune diseases, infections and poor diets are risk factors for depression. Persons on a Mediterranean diets which have anti inflammatory fats enjoy significantly lower rates of depression. SSRIs may improve symptoms by increasing neurogenesis in the hippocampus.

More than 11% of children aged four to seventeen are diagnosed with ADHD. Two thirds are medicated. More than 10,000 toddlers (two- and three-year-olds) are now being medicated. Breast fed infants are less likely to be diagnosed with ADHD in the future.

#### Protective Influences for the Microbiome

There are many factors that promote a healthy diverse microbiome. A natural vaginal birth is important because it allows the child exposure to the microbiota of the mother and gives the child a health microbiome start. Breast feeding supports the microbiome as well.

Microbiome has changed over time. By examining dental calculus (hardened dental plaque caused by precipitation of minerals) containing mineralized bacteria, changes were found.<sup>5</sup>

Diet has a dominant role in shaping the gut microbiota. Rural children in Burkina Faso had more healthy fecal microbiota that European children. The African children had more short chain fatty acids in their feces compared to the European children. Dr. Perlmutter hypothesizes that the reduction in micobiota richness found in European children is related to the high levels of sugar, animal fat and calorie-dense foods consumed in industrialized countries.<sup>6</sup>

A high fiber diet, consumption of probiotics (such as kimchi, sauerkraut, yogurt, kefir, kombucha) and prebiotics (jicama, dandelion greens, garlic, chickory root, Jerusalem artichoke) help diversify the microbiome.

Negative influences on the mcriobiome

Events that threaten microbial diversity include antibiotics, birth by cesarian section, medications, water treatment, diet, hormone therapy. These lead to inflammation. A postulated causative factor in Alzheimer's disease, Parkinson's disease, autism, multiple sclerosis, stroke, depression, ADHD.

Other factors that hurt microbiome include obesity, the western diet, hygiene, stress, and pathogenic bacteria, gliadin, high fructose corn syrup, environmental chemicals, insecticides, and genetically modified foods.

Fructose, which is represents 42 percent of all caloric sweeteners in the US. High fructose corn syryp increases circulating LPS by 40% and has a detrimental effect on the microbiome.

Glyphosate (roundup) (for GMO products)

Glyphosate (roundup) is used in more than 750 different products for agriculture, forestry, urban and home applications. Glyphosate is considered "probably carcinogenic to humans." It changes the microbiome and impairs the detoxification pathways (cycochrome P450 pathways). It compromises vitamin D 3 activation, and it chelates iron, cobalt, molybdenum and copper It also depletes tryptophan, tyrosine, methionine and selenomethionine.

Gliaden (a component of gluten)

Intestinal exposure to gliadin, a component of gluten, induces an increase in intestinal permeability in all individuals, regardless of whether or not they have celiac disease.

#### Certain Medications

**Antibiotics** 

Any exposure to antibiotics increases the risk for diabetes type 2 (which can increase the risk for Alzheimer's Disease.) Narrow spectrum antibiotics have more adverse effects than broad spectrum antibiotics. Seventy percent of antibiotics are given to animals to make them fat.

The association between the increasing cumulative days of antibiotic use and increasing cumulative number of antibiotic prescriptions were associated with increased risk of diabetes type 2, incident breast cancer and death due to breast cancer. All classes of antibiotics were associated with increased risk.

While antibiotic therapy has dramatically reduced infectious disease burdens worldwide it also acts as weapons of "mass microbial disruption."

Antibiotics have effects on intestinal microflora and immune and inflammatory responses. For example, antibiotic use may increase the risk of breast cancer by decreasing phytochemical metabolism by intestinal microflora. There is mounting evidence from rodent models suggesting that antibiotics may drive changes in insulin sensitivity, glucose tolerance, lipid deposition and energy harvesting potential by altering the gut microbiota composition. <sup>8</sup>

Proton Pump Inhibitors (Antacids)

Potential Adverse Effects of Proton Pump Inhibitors in the elderly include clostridium difficile infections, hip fractures, community acquired pneumonia, vitamin b12 deficiency, allergic reactions. PPIs also increase the risk of Alzheimer's disease by 44 % and also increase the risk of heart attacks and cardiovascular mortality. <sup>10</sup>

#### **Statins**

Statin users had 46 % increased risk of type 2 diabetes.

Insulin sensitivity decreased 24 % and insulin secretion decreased 12 %. Diabetes increases the risk of Alzheimer's Disease. The highest risk was for statin users whose initial blood sugars were the lowest (<99) at the beginning of the study. <sup>11</sup>

#### Recommendations

Regulating the microbiome can help with virtually any degenerative of inflammatory condition. This includes such conditions such as asthma autism, chronic fatigue, mood disorders, diabetes and sugar craving, memory problems frequent colds or infections, insomnia, hypertension, atherosclerosis, chronic yeast problems gum disease, Tourette syndrome, extreme menstrual and menopausal symptoms. Decreasing gut dysbiosis may attenuate neuroinflammation and treatment for obesity related cognitive impairment.

To turn on the good genes which will keep inflammation in check

- Healthy organic diet
- Low carbs, gluten free diet
- Jerusalem artichoke
- Probiotics
- Yogurt
- garlic
- Enriched with prebiotic fiber and fermented foods

- Kimchi
- jicama
- Sauerkraut
- dandelion greens
- Kefir
- chickory root

#### DHA change genetics

- maintain healthy blood sugar levels
- aerobic activities increase microbial diversity and nerve growth factor which can generate new neurons. Twenty percent of gut diversity can be explained by peak oxygen level. <sup>12</sup>

For more information, an interview with Dr. Perlmutter will take place on OccupyHealth on January 20 th on VoiceAmerica te Health and Wellness Channel at 11 am and again at 11 pm (then archived)

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(End of Article)

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



Meet Christine Rosche, MPH, CNS, CBT, Board Certified Nutrition Specialist and Nationally Certified Biofeedback Therapist has developed an integrative approach to nutrition and digestive health based on 25 years experience in the health care field.

She developed and taught health promotion courses at Stanford University Medical Center and Heart Disease Prevention Program. She is the author of 2 books, the most recent: Light Living, An Integrative Approach to Health and Weight. She has maintained a

private practice in health counseling since 1983 at Integrated Healing Arts in Palo Alto and specialized in customized programs for digestive issues, inflammation, hypertension, blood sugar issues, eating disorders, metabolic syndrome, diabetes, eating disorders, emotional stress eating. Patient Advocacy is an important part of her practice.

(End of Meet Christine Rosche!)

# Secondary Presentation by Christine Rosche, MPH, CNS, CBT

"The Gut Brain Connection"

The brain has 90 percent of its receptors in the gut; A bad digestive system means a bad brain. A leaky (permeable gut) correlates with a leaky permeable brain. A permeable gut results in its contents leaking into the body creating inflammatory and auto immune responses. A permeable blood/brain barrier results in unwanted substances perfusing into the brain, causing havoc in the brain.

Christine will discuss cases from her practice and the best nutritional/lifestyle/supplements strategies to heal the gut and the brain.

(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.

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