Smart Life Forum

SmartLifeForum.org Presents

Steven Wm. Fowkes, BA

on

Preventing & Reversing Dementia & Alzheimer Disease

Thurs, Jan 15, 2009, 7 PM
LOCATION: Cubberley Community Center – Room H1
4000 Middlefield Rd
Palo Alto, CA

FUTURE SPEAKERS

April 16, Dave Steenblock, MD
May 21, Aubrey De Grey, PhD
June 18, Len Saputo, MD

FMBR Meeting, January 23 Beverly Rubik, PhD. whose topic is, "Do High Frequency Brainwaves from the Forehead Region Correlate with Higher Consciousness?" In her study, she compared advanced meditators practicing transcendental meditation with non-meditating controls using neuro-feedback with the Peak Achievement Trainer (PAT). PAT is a novel type of neurofeedback that can assess and train various dimensions of mental processing, including a clarified 40-Hz brainwave, in which signal artifact from muscle tension or movement is filtered out. See FMBR.org for new location.

Meet Steven Fowkes, BA

Steven Wm. Fowkes is Executive Director of the Cognitive Enhancement Research Institute (CERI) and Editor of *Smart Drug News*. Previously, he was editor of the MegaHealth Society's newsletter, *Forefront - Health Investigations*. Steve is author or co-author of several books including *GHB: The Natural Mood Enhancer*, *Smart Drugs II: The Next Generation*, *STOP the FDA: Save Your Health Freedom*, and most recently, *The BHT Book, which is about antiviral therapies*.

Mr. Fowkes is the author as well of many magazine articles about health issues, and edited Dilman and Dean's *Neuroendocrine Theory of Aging and Degenerative Disease*. Steve has extensive experience designing supplement formulas, several of which have been multi-million sellers. He has been researching and using nutrient-based cognitive technologies for twenty years. Steven has appeared on numerous television programs to discuss supplements and cognitive enhancement. Mr. Fowkes is also the technical advisor for Smart Life Forum.

Main Presentation

For people interested in cultivating health and wellness, the brain is an essential tool. We use our brains to make decisions about what foods to eat, what supplements to take, what activities to engage in, what therapies to consider, and who to listen to for advice and counsel. But with dementia, we lose these abilities. We become entirely dependent on other people for the brain power to get us back to wellness.

Fortunately, the transition from wellness to dementia is usually a long and gradual process. This offers us plenty of opportunity to observe the process at earlier stages than overt dementia—and do something about it. In other words, our brains are a potential diagnostic resource for health changes. In fact, **the huge energy burden of the brain makes the brain more sensitive to destabilization than any other system of the body.**

An impact on our arm that would cause pain and a bruise can cause complete loss of consciousness if the same impact is to our head. This means that long term monitoring of brain function can detect many adverse health consequences well before they can be detected by adverse changes in other body systems.

Due to modern science, the mechanisms of dementias are generally well understood and most dementias are fairly easy to treat. That's the good news. The bad news is that you cannot necessarily rely on your doctor, the drug companies, non-governmental organizations, or governmental agencies for treatment, advice, or support. But by becoming an empowered patient, you can rely on yourself and your support network.

Brain Metabolism & Dementia

Dementias usually result from critical failures of any one or possibly several aspects of brain metabolism. These can be the same kinds of failures that can cause problems with other organs of the body, like how circulatory problems restricting blood flow can cause heart disease—or vascular dementia. However, they can also be unique to the brain, like the failure of the phosphorylation cycle that is involved in Alzheimer's disease, which does not really have an equivalent pathology outside the brain.

The brain is metabolically unique in signify-cant ways. This is clear when one considers that the brain is only 3% of the body's mass, yet consumes approximately 20% of the body's energy. In fact, **energy deficit is the primary mechanism of Alzheimer's disease.**

The phosphorylation cycle mentioned above, which goes from over-phosphorylation to under-phosphorylation every 90 seconds, might not seem to do anything constructive in the sense that the energy invested to phosphorylate (add phosphate groups to) the *kinase enzymes* and *phosphorylase enzymes* of the brain has to be matched by an equal energy investment to "undo" that phosphorylation only a minute later. Yet genuine value is created by that "waste" of energy—namely, the long-term stability of the brain's metabolism and neurological functionality, which also, hopefully, ends up being translated into such personal mental values as experience, judgment, imagination and rationality, and the myriad cultural values that are derived or enhanced from better brains and wiser minds.

Energy Needed for Transport

The brain's microtubule transport system may not be unique to the brain, but it is unique in its degree of importance to the brain. In the body, where cells tend to be globular, much transport of materiel can be accomplished by simple diffusion. Much like how it is pretty easy for us to share food at a family gathering when sitting at the same table, chemicals produced in one part of a round cell can easily spread from where they are produced to the rest of the cell where they are used, if the distances are not too great.

But in the brain, a very large percentage of essential cells are not globular at all. They are long, thin and spindly, and highly branched. They are so thin that the average dendrite, if it were the same width as a two-lane highway, would stretch from Seattle to Miami.

Diffusion is hopeless for moving materials over such distances, and so the brain must rely upon its extensive network of micro-tubules and "motor proteins" to transport materials. The microtubules are directional, and the *kinesin proteins* move "outward bound" materials from the nucleus to the periphery, and the *dynein proteins* move "inward bound" materials from the periphery to the nucleus.

This entire transport system requires significant energy. ATP drives the motor proteins, and GTP powers the assembly and maintenance of the microtubules them-

selves. This is another reason why the brain requires a disproportionate amount of the body's energy reserves.

The Cast of Characters

Doctors. *Most medical practitioners are simply unaware of the science underlying dementias and resort to symptomatic treatments with drugs that actually increase dementia risks.* Many cases of dementia are actually caused by **polypharmy** (multiple-drug interactions) and should be considered iatrogenic in origin (i.e., caused by the way doctors practice medicine). According to medical experts, iatrogenesis is neck and neck with cancer and heart disease as a leading cause of death in the US. Given the degree of underreporting (denial) that I have seen for iatrogenic adverse events, I believe that medical-induced deaths are probably the #1 cause of death in the USA.

Iatrogenic dementias are probably more common than most people believe. Many mainstream doctors dismiss their responsibility for causing dementias by rationalizing that the slow onset of cognitive decline in an elderly client must be ordinary age-related senility. It is simply "too much work" to stop administering drugs that are prescribed for high-blood pressure, elevated cholesterol, painful joints, skin conditions, glaucoma, erectile dysfunction and/or osteoporosis. The symptom-drug mind-set in mainstream medical practice locks doctors and patients into a downward-spiraling cycle that generates, deepens and perpetuates dementias. There is a better way.

Non-Governmental Organizations. NGOs promote "research" into conditions to maximize their income and influence, not to cure diseases. Pick an organization and have a look. Take the American Cancer Society's position on dietary, herbal and metabolically-based cancer therapies. How about the American Heart Association's role in inhibiting vitamin and NO (nitric oxide) therapies for cardiovascular disease?

I personally witnessed the National Down Syndrome Congress' efforts to suppress targeted nutritional intervention for Down's syndrome. And the SLF heard Dr. Gerald Reaven discuss the American Diabetic Association's long-standing recommendation of a diet high in complex-carbohydrates for diabetics, despite the clear scientific and medical evidence that it causes and deepens diabetes.

Government. A few topics touched upon at SLF makes it clear that patients can not count on our government. For example:

1) The foolish food pyramid, which is reincarnated with every passing public-health fad.

2) The campaign to remove tropical oils from popcorn in movie theaters and expose Americans to greater cancer risks.

3) The promotion of margarine for decades after it was known to be dangerous.

4) The wholesale cooption of public grant monies for the promotion of nucleoside antiviral-drug therapies for treatment of AIDS, despite their horrendous health consequences and the presence of safer nutritional alternatives.

5) The FDA's legal "no preservative" labeling for foods that actually contain preservatives.

6) Four decades of laws against truthful claims for dietary supplements that were finally found to be in violation of the free-speech provisions of the First Amendment.

7) The addition of chloramine in the US water supply prior to any public-health assessment of its safety.

These are topics that have been touched upon at Smart Life Forum meetings in the

past, but they are only the tip of the iceberg.

What can you do?

The good news is that you can learn what you need to know to be a better doctor than your doctor, regarding your specific health conditions—or at least keep your doctor honest about full disclosure of risks and benefits. A rudimentary example: you can discover what your doctor will not tell you about the known side effects of prescribed drugs.

You can find out about alternative therapies that most doctors *cannot* tell you about (because they haven't studied them) involving nutrients, herbs, metabolism and/or toxic exposure, to name but a few. The Smart Life Forum is but one place to gather such information.

You can use this knowledge to better "filter" new information that you might be casually exposed to in news reports or on the Internet. Two recent examples will illustrate this. One is an example of "sensational" journalism that got a lot of attention, although it lacks credibility. The second is an example of a finding that could offer dementia patients real hope, but relatively few people may know about it—a virtual "buried treasure."

First, the headline screams "Virus clue to cause of Alzheimer's disease: Cheap cold-sore drugs could offer best treatment yet." Written by Mark Henderson, Science Editor, from *The Times*, 6 December 2008. This is a straightforward (and gullible) presentation of the research from scientists who do not understand the difference between "cause and effect" and "association," and are promoting greater drug use in Alzheimer's disease without any real evidence of clinical belefit.

In fact, I will predict 1) that further research will actually find that HSV is merely opportunistic in Alzheimer's disease, as it is in countless other aging-related conditions, and as other viruses are with Alzheimer's disease 2) that treatment with antiviral drugs will not slow down Alzheimer's progression, and 3) that treatment with antiviral drugs will actually increase the progression by deepening the energy deficit that is the primary mechanism of Alzheimer's disease and aggravating polypharmy side effects.

Second is an article written by Florida pediatrician Mary T. Newport, *What If There Was a Cure for Alzheimer's and No One Knew?* which is a nicely researched, succinctly reported, well referenced, clinical report of her 58-year-old husband's case of progressive dementia and/or Alzheimer's disease and its reversal by a coconut-oil-and-ketosis program.

What you can do to protect your health is become an empowered patient: think for yourself, do your own research, and then act.

How can you do it?

The bottom-up and top-down approaches can each make important contributions. I mainly talk about the bottom up approaches of nutrition, metabolism, detoxification and activity because these tend to be more daunting to the average person in terms of perceived complexity. However, top-down approaches to sleep quality, relaxation, meditation, religion and spirituality, and hormone-replacement and other neuro-endocrine therapies can be very important. The body affects the brain (and mind), and the brain (and mind) affects the body.

In essence, my bottom-up approach with nutrition and metabolism is a top-down approach in that I believe that the body and brain have the intrinsic ability to heal themselves and restore functionality when given the support they need. This definitely applies to dementias, which tend to be classified in two broad categories, one of which is of unknown biochemical cause and the other of which is of known biochemical cause. However, I suggest that it is probably a big mistake to assume that

dementias of unknown cause do not involve the mechanisms of dementias of known cause.

A doctor's diagnosis of a specific kind of dementia is based on a constellation of symptoms and not on test results of specific biochemical disturbances. This can be glimpsed in the differential symptoms of Wernicke-Korsakoff dementia, which is caused by a specific B1 deficiency, and "alcohol-induced persisting dementia" which seems to have a significant non-B1 cause (glutathione? insulin resistance?) in addition to the B1 deficiency induced by the alcohol exposure. It can also be glimpsed in the subtleties of different kinds of Alzheimer's diseases, some of which show Lewy bodies and others that don't, some of which affect vision and others that don't, and some which show "tangles" composed of all the different kinds of tau protein, and others of only one kind of tau protein. So please do not assume that a diagnosis is definitive, exclusive or correct.

Treatment and prevention can often be about the same things. Wernicke-Korsakoff dementia can be treated and prevented by administration of B1. And insulin resistance can be reversed prior to after the advent of dementia.

The primary difference between treatment and prevention is that you will able to prevent your own dementias if you want to, but highly unlikely to be able to treat your own dementias once afflicted. You need a functioning mind to treat dementia, so if you have dementia, you must rely upon caregivers for treatment.

Preventing dementias for yourself is enabled by self-assessment of cognitive performance. If you plot any primary aspect of cognitive performance over time (memory, balance, coordination, reaction time, decision-making speed, proprioception, intelligence, spatial perception, etc.), you will be able to 1) see pre-senility changes as they are first happening, 2) take action to reverse the process, and 3) see the efficacy of any attempted therapy in your data. This can involve standardized neuropsychological testing systems, or it can involve playing computer games. The only guidelines are that you should measure something that is important to you, and make it as fun as possible so that you will actually do it regularly (daily is best, and weekly at worst). (Periodic is OK!)

If you have a metric (ongoing mental-performance data), therapy becomes easy to evaluate. If you take 100x-RDA of B1 and see no up-turn in your cognitive performance, then B1 deficiency is not likely to be a critical aspect of your mental decline. But you may be much more comfortable taking a more gradual approach by taking 5 mg of B1 on Monday, 10 on Tuesday, 20 on Wednesday, 50 on Thursday and 100 on Friday.

The opposite correlation also applies. If you take thyroid hormone and your mental decline reverses for several days, then you are likely suffering from hypothyroidism (or hypometabolism) despite any "normal" blood tests that may have been done. Trust your body to tell you what it needs.

For some things, like B1, a single dose may be sufficient to see a change. For other things, like nattokinase for blood coagulation, a week may be necessary to see benefits. For neuroendocrine-mechanism therapies like melatonin, testosterone or deprenyl, a month may be needed to see results.

Take care of your brain so your mind can take care of you.

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