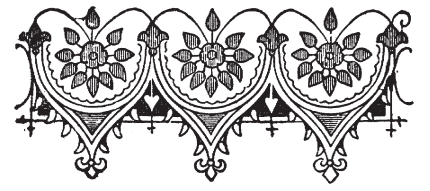


Health & Wellness



Reversing Alzheimer's Disease with Functional Medicine



Dr. Kate Thomsen and Silky

The state of equilibrium maintained by the plants, animals, human beings and their environment is referred to as ecological balance. Organisms are interdependent. The trees breathe for us and we breathe for them. Earlier in my career as a teacher I was fortunate to find myself guided into the woods of New Hampshire. I became a teacher-naturalist, educating young people about the web of life. It was the 1970s and I was planting seeds in a younger generation that I hoped would grow into respect for the magnificent interdependence and ecological balance that exists on planet Earth.

This ecology background shaped the way I learned medicine eventually leading me into the field of functional medicine. Being a functional medicine provider for almost 20 years, I have witnessed the power of this medicine as it has matured to become more and more evidence based, clinically relevant, and able to identify and treat root causes of multiple complex physiologic imbalances. The only reasonable way to approach health care, I believe, is to keep searching for the imbalances that keep us from being whole in our mind, body and spirit. So I was more than excited and inspired when I took the Institute for Functional Medicine's most recent Advanced Clinical Training "Reversing Cognitive Decline: Treating MCI (mild cognitive impairment) and Early Alzheimer's Disease". Dr. Dale Bredesen's course is based on his many years as a neurosciences researcher, 12 years as Founding President and CEO of the Buck Institute for Research on Aging and over 200 publications. Better yet, it is based on his continuously updated ReCODE protocol that has reversed the "incurable" Alzheimer's Disease in over 200 people and counting. This educational program put together everything I have learned in Functional Medicine in such a beautiful way – all based on the interdependence and eco-

logical balance of the brain with its environment. Full circle.

Dementia is a brain disorder that affects many mental abilities including memory, reading, writing, speaking, calculating, organizing, following a conversation, planning, and reasoning. It can be the result of multiple small strokes, brain trauma, or neurodegenerative diseases like Parkinson's Disease and Huntington's Disease. By far the most common cause of dementia is Alzheimer's Disease. It causes memory loss and progressive cognitive decline - eventually leading to an inability to perform daily activities and death. There are 5.5 million Americans living with Alzheimer's Disease in 2017 – that's 1 in 10 people over the age of 65. 200,000 people living with the condition are "early-onset Alzheimer's" - under the age of 65. The number of new cases of Alzheimer's Disease is expected to soar with the aging of the baby boom generation. Dr. Bredesen calls this a "tsunami" that could bankrupt Medicare and Medicaid and put huge strains on our caregivers and long-term care facilities. As climate change appears to be the sign and result of severe ecological imbalances, so the human physical body, subject to the imbalances of a 21st century lifestyle is manifesting more and more chronic conditions like cancer and Alzheimer's Disease.

Until very recently, the diagnosis of Alzheimer's Disease was presumed based on symptoms and only proven if one had an autopsy where "plaques and tangles" were found in the brain. Dr. Aloisius Alzheimer discovered plaques in the brain of a demented patient in 1906. Amyloid plaques are found in all patients with Alzheimer's Disease and, since 1980, the amyloid hypothesis has dominated the research. The amyloid protein deposits in the brain form sticky plaques that interfere with brain cell connections. Getting rid of the plaques has been the focus of intense drug development. There are currently four pharmaceutical drugs on the market for Alzheimer's Disease and, while they may lessen symptoms temporarily, the Alzheimer's Association has said that the currently approved medications are ineffective in stopping or slowing the course of the disease. Essentially we have a devastating and burdensome fatal disease with no cure – until now.

Dr. Bredesen's work involves an understanding of why beta amyloid plaque is formed. We

know that brain cells have a receptor called APP and certain molecules and factors interact with APP to nurture and support the brain cell and its connections. Other molecules and factors interact with APP causing it to create beta amyloid and destroy the cell and its connections. Both these APP pathways are useful to the human brain. Nurturing and supporting brain connections is especially important when we are young and learning at a high rate. Pruning away connections to thoughts and processes that are no longer needed is efficient as we change our focus in life. Selective pruning of brain cell connections is especially important as we age and our brain cells have to deal with less nutritional support and our accumulated toxic wastes. Once these amyloid producing factors are in play however, they "snowball" and destroy more and more brain cells and connections unless the process can be stopped by supporting the alternate cell supportive APP pathway. The brain has 4 quadrillion synapses (cell to cell connections) so takes a while for the destruction to be vast enough to manifest in memory loss. Beta amyloid has been seen in brains 20 – 25 years before the actual diagnosis of Alzheimer's Disease.

Using data from petri dishes, mice, and other models Dr. Bredesen has found 36 factors that have to be balanced in order to stop the progression and reverse Alzheimer's Disease. His ReCODE protocol (REversing COgnitive DEcline) is unique and challenging as it involves evaluating and treating the 36 factors in order to provide the nurturing/pruning balance of synapses we call "normal" brain function. Monotherapy (1 drug treatment) of Alzheimer's Disease has not proven to be successful. But ReCODE is brain ecology. Dr. Bredesen likens it to a barn with a leaky roof. If there are 36 holes in the roof, plugging one hole will not return the barn to a dry condition. All the holes (or at least most of the holes) need to be addressed. The earlier these 36 causes are identified and re-balanced, the better the chances of preventing or reversing cognitive decline.

Before starting to plug up holes, a clear diagnosis is needed. A person's degree of symptoms can tell us where along the course of cognitive decline they are. Their specific set of symptoms can help us determine if it is

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INTEGRATIVE AND HOLISTIC HEALTH AND WELLNESS

Dr. Bredesen recommends a "Cognoscopy" for:

- everyone over 45 years old
- people at genetic risk of Alzheimer's Disease because of a family history
- people at genetic risk of Alzheimer's Disease because of an ApoE4 gene
- people who are experiencing impaired cognitive function

A "Cognoscopy" is:

- a set of blood tests to determine your vulnerability to the 3 major subtypes of Alzheimer's Disease with
- a short evaluation of your current cognitive function



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Alzheimer's Disease or another condition that is responsible. Further testing may be needed to clarify this. To confirm Alzheimer's disease, we no longer have to wait until autopsy. The new amyloid – PET scan will show plaques and tangles in the brain. An MRI with volumetrics will show what regions of the brain are most affected. The ApoE4 gene will confer increased risk.

The many years of data collection done by Dr. Bredesen have yielded several distinct types of Alzheimer's Disease based on the predominant imbalances. The main ones are: Inflammatory, Nutrient Deficient, Insulin Resistant and Toxic. Each type will have a different set of lab abnormalities as well as a different history and clinical course. Searching out the cause of the low grade infection while healing the inflammatory damage is the task in Type 1. In type 2 we identify and replace nutrient, hormonal and lifestyle deficiencies. A toxin from mold or heavy metals may be found promoting the decline in Type 3. There is some overlap in these categories as one would expect.

The ReCODE protocol shifts the balance from synapse destruction to synapse preservation through lifestyle changes (sleep optimization, stress reduction, exercise, brain training, and a ketogenic type diet based on whole foods with lots of vegetables). Additionally balance is restored through addressing chronic low grade infections, poor blood sugar control, hor-

mon and nutrient replacement, toxin removal, and healing leaky gut and leaky blood brain barrier. Nutrients and herbs are used to protect and support synaptic function. It is a lot of work for the clinician, the clinic support team as well as the patient and the patient's support team - but it is a real game changer!!!!

We are an ecosystem. We live in ecosystems. We are interdependent beings. We can't pollute our air, water and food and stay healthy. We can't eat non-nutritive foods and have energy. We can't stay up all night and be able to think clearly. We know this stuff!!! Dr. Bredesen's Recode protocol essentially replicates the mantra I used after my diagnosis of breast cancer 17 years ago: decrease toxic exposures, increase nurturing protection. Read his book, "The End of Alzheimer's: The first Program to Prevent and Reverse Cognitive Decline". You will be impressed.

Dr. Kate Thomsen's office for holistic health care is located in Pennington, NJ. She is trained in Family Medicine, and Board Certified in Integrative Medicine, and is an Institute for Functional Medicine Certified Practitioner. She has been practicing Functional Medicine for 20 years. For more information see www.drkatethomsen.com or call the office at 609-818-9700