"You must understand," she said, "This is the future of the mind. It's preventive medicine for the brain. Why in heaven's name has it taken so long for this information to become available and thank goodness you've done it. It's brilliant."

I was sitting in the Palm Court room of the luxurious Langham Hilton in London. Across the street was the BBC building, where I had just spent most of the day being interviewed. My hostess was Erin Pizzey of Saga Magazine, England's most prestigious periodical for people over fifty. I felt emblazoned by her outpouring of admiration for my new book, Brain Longevity, The Breakthrough Medical Program that Improves Your Mind and Memory (Warner Books US, Random House UK). It was clear to her that this book, co-authored with noted science writer Cameron Stauth, was monumental. As we sat back in the over-sized chairs, while they served us peppermint tea, she looked at me and said, "This is your mission, isn't it? Isn't it your life's work?"

"Yes, it is true." I answered "It is my mission to make this work available to health care practitioners so they can in turn help their patients prevent and reverse memory loss." Beyond that, we can show people how to develop and maintain high levels of brain power at any age or stage of life." "The reason," I continued, "is that the brain is after all just flesh and blood."

This fact has been ignored by neurological researchers for years, as they struggled to find the one "magic bullet" that would reverse Alzheimer's disease. Now, recent studies showing a positive correlation between vitamin E and slowing of cognitive decline in patients with moderate Alzheimer’s, has many researchers saying that enhancing overall brain health may be one of the key factors in maintaining optimal levels of brain function as we age.

It makes sense that a brain longevity lifestyle program would be effective because it nurtures the brain on every level. Lifestyle modification has already proven to be effective in helping patients suffering from the three greatest killers of people in the world; heart disease, cancer and strokes. As Erin and I discussed the program, it was she who put the tremendous social implications of Brain Longevity into perspective. She felt it was critically important to get this information out so we can avoid the potential holocaust of brain degeneration in staggering numbers as we age as a world- wide society. "You know," she told me, "I've read that because Alzheimer's Disease is a disease of age (with nearly fifty percent of people developing it at age eighty-five) if we can slow the incidence of it by five years, we can virtually cut it in half." And she went on, "If we
can slow it by ten years, we can literally bring an end to this scourge. We will simply out live it, and we have got to do it."

"It is also imperative to help people with age associated memory loss," I explained, "because fifteen percent of people with what used to be thought of as a benign disorder progress to real dementia. If we can do this, perhaps we can limit the cognitive decline associated with aging. Instead of entering a spiral of degeneration with every passing year, we can enter into a cycle of regeneration, imparting wisdom to the generations that follow.

The Brain Longevity Program consists of four pillars.

1) The first pillar is nutritional modification, including a fifteen to twenty percent fat diet and special supplements. Many times I am asked if someone on a Brain Longevity Program has to be a vegetarian. The answer is no. They simply have to move away from what used to be called a high fat American diet, rich in high cholesterol foods such as meat and eggs. Adding breast of chicken, fish and non-animal protein products such as tofu is helpful. Certain fish is especially good for the brain. These fish includes salmon, tuna, trout, mackerel, and sardines. As far as supplementation is concerned, the most important are B complex vitamins for energy, 50 mg a day vitamin E, 400-800 IU a day for antioxidant action, Co-enzyme Q-10,100 mg a day, for its neuro-protective effects, the herb Gingko Biloba, 120 mg a day to increase blood flow to the brain, and a relatively new brain-specific compound with the imposing scientific name of PhosphatidylSerine. I tell my patients to simply remember it as PS, like that old Beatles song, P.S., I Love You. PS, in doses of 200-300 mg a day, is the subject of many studies around the world, showing that it improves attention, concentration, short term memory and imparts a protective effect against stress chemicals. This is critically important and leads to the second aspect of the Brain Longevity Program.

2) The second pillar of Brain Longevity Therapy is stress management. It is crucial because chronic, unbalanced stress causes elevation of the hormone cortisol. Cortisol has a toxic effect on the memory center of the brain and can cause memory loss. The stress management tool of meditation decreases cortisol and enhances many aspects of mental function. Massage and guided mental imagery have also recently been shown to lower cortisol levels in the blood.

3) Exercise is the third pillar, and like ancient Gaul, is divided into three parts; mental exercise, physical exercise, and mind/body exercise.

3a) Mental Exercise. Nowhere more than in the brain is the old adage, "Use it or lose it," more appropriate. In fact, Einstein had a fairly normal brain when it came to his neurons. However, what was extremely unusual was the structure of his brain, rich in supporting glial cells. He was the Michael Jordan of mental athletes. My ninety-one year old mother is a prime-time example of how mental exercise helps maintain clarity throughout life. She has been on a Brain Longevity Program for a number of years and enjoys watching game shows. She gets a big kick out of beating the contestants to the answers.

3b) Aerobic reconditioning enhances mental function by twenty to thirty percent. As much as possible, it is included in every patient's Brain Longevity prescription.
3c) The ancient art of brain regeneration, and of innovative mind/body exercises, derived from my twenty years practice of advanced yoga and meditation, are important in enhancing global brain energy. One of my patients, a fifty-two year old attorney from inside the Beltway in Washington, DC, recently called to tell me that he is still enjoying success after four years on the Brain Longevity Program. He has completely reversed his age-associated memory impairment. He told me he never misses a morning of his Dr. Dharma mind/body exercises.

4) The final phase of Brain Longevity Therapy comes from the white hot forefront of anti-aging medicine. Among pharmaceutical drugs I use to help regenerate the brain cells is L-Deprenyl Citrate. Deprenyl is a medicine that has been shown to increase longevity in animals and increase important biochemicals in the brain. In recent studies of patients with moderate Alzheimer's Disease, Deprenyl improved attention, memory, verbal fluency and behavior. As Deprenyl may slow a decline in cognition it is an important component of Brain Longevity. As with all medications, there are reported side effects and contra-indications. Side effects associated with Deprenyl may include anxiety and insomnia if the dosage is too high. It may be contra-indicated in patients taking anti-depressants such as Prozac, and in those individuals suffering from heart disease. Deprenyl should only be prescribed and taken under the supervision of your doctor.

Hormone Replacement Therapy with Pregnenolone, DHEA and Melatonin are also part of the therapeutic options in the prevention and reversal of memory loss. Pregnenolone has been clinically shown to be useful in patients with memory loss, especially those who have difficulty finding the correct words. DHEA is currently controversial because of concerns over long-term use. When I prescribe DHEA as part of my program, I always have a blood level measured. If the patient is a male, I will also check their PSA blood test (prostate specific antigen) because of concern about the long term effects of DHEA on the prostate. Melatonin is useful for insomnia, jet lag and re-normalizing the body's biorhythms. It is my clinical observation that the generally recommended dose of 3-6 mg is too high. I prescribe 0.1 mg to 0.5 mg as a beginning dosage. Side effects with the higher dose include uncomfortably vivid dreams, morning headache and grogginess.

There are important non-cognitive benefits of the brain longevity program as well. I recently heard the true story about a British philosopher who did not have an answering machine; he had a questioning machine. When you called him up, the message went: "Who are you? And what do you want?" In case you think these are trivial questions, they are not. Most of us human beings come into this life and leave it once again without ever answering them. While it is very true that the Brain Longevity program can help us prevent and reverse memory loss as well as develop and maintain high levels of brain power, it can also allow us to tap into a very special part of our being. We can enjoy discovering who we really are and exploring the true nature of life. Along the way we will be sure to create a lifetime of peak mental performance.