Cognitive Benefits of Spirulina

Spirulina is a neuroprotective supplement. A significant amount of research in this area has been done by Dr. Paula Bickford, a Professor at the University of South Florida Center for Aging and Brain Repair. Dr. Bickford is the researcher who was responsible for studies on the health benefits of blueberries, and through the publicity from these studies, the sales of blueberries have skyrocketed to unprecedented levels. Recently, Dr. Bickford has turned her attention to Spirulina. She has found Spirulina to be an incredible supplement, and the publicity bandwagon has started moving for Spirulina already. For example, last fall the world's largest circulation periodical, AARP Magazine (with over 50 million subscribers) published an article on steps people can take to live longer. Dr. Bickford's work on the effects of Spirulina as a neuroprotective agent were heavily referenced. The article ended with a list of the "Five Foods that Can Add Years to your Life." The #1 food on this list was Spirulina!

One of Dr. Bickford's studies proved that Spirulina reduces ischemic brain damage in rats, and that these rats had improved post-stroke locomotor activity. This study compared Spirulina to blueberries, spinach and a control group. Both blueberries and spinach reduced brain damage caused by ischemia by roughly 30%; Spirulina reduced it by 70%! And what is even more amazing is that blueberries and spinach were given to the rats at a level of 2% of their total diet, while Spirulina was given at only 0.33% of their total diet (Wang et al, 2005).

Previously, another research team led by Dr. Bickford demonstrated that Spirulina reduces degeneration of the brain of aged animals while decreasing pro-inflammatory cytokines in the brain. In this test, they measured Spirulina's activity against apples and cucumbers (cucumbers were used as a control due to their lack of antioxidant activity). As we age, our brain's ability to function is reduced due to decreases in the cerebellar beta-andrenergic receptor function. In this experiment, Dr. Bickford's team proved that Spirulina could actually reverse the effect. Spirulina could make old animals' brains function like young animals! Apple had a slight effect, while cucumber had no effect (Gemma, et al, 2002).

Lastly, a study was completed in Sweden in 2005 by a different team, also associated with Dr. Bickford. In this study, Spirulina was shown to enhance dopamine recovery and induce a rapid microglia activation after injury of the dopamine system. The researchers attribute the loss of dopamine neurons in the brain to inflammation. Due to Spirulina's anti-inflammatory properties, a positive effect was found in dopamine neuron recovery (Stromberg, et al, 2005).

To summarize, there is strong evidence that BioAstin Natural Astaxanthin holds great promise for those wishing to prevent cognitive diseases and maintain general brain health. In particular, daily supplementation with BioAstin may have tremendous benefits for those wishing to protect there brains as they age.

References

Gemma, C, Mesches, MH, Sepesi, B, Choo, K, Holmes, DB and Bickford, PC. 2002. "Diets enriched in foods with high antioxidant activity reverse age-induced decreases in cerebellar beta-adrenergic function and increases pro-inflammatory cytokines." Journal of Neuroscience 22(14):6114-20.

Stromberg, I, Gemma, C, Vila, J, and Bickford, PC. 2005. "Blueberry and Spirulina-enriched diets enhance striatal dopamine recovery and induce a rapid, transient microglia activation after injury of the rat nigrostriatal dopamine system." Journal of Experimental Neurology 196(2):298-307.

Wang, Y, Chang, CF, Chou, J, Chen, HL, Deng, X, Harvey, BK, Cadet, JL, and Bickford, PC. 2005. "Dietary supplementation with blueberries, spinach or spirulina reduces ischemic brain damage." Journal of Experimental Neurology, 193(1): 75-84.