



The Experts Discuss Immune Function

The Scientific Advisory Board is committed to providing high-quality, well-researched, proven-effective products that deliver nutrients the way nature intended. You can depend on the SAB for sound scientific guidance to help you make informed life choices. In this issue, SAB members discuss the importance of maintaining a strong immune system with the help of Carotenoid Complex™.



Dr. Arianna Carughi is a Fellow at Stanford University for her post-Doctoral research, and a Certified Nutrition Specialist, a title granted by the American College of Nutrition. She is also the recipient of the Neizer Fellowship from Stanford University and a National Institute of Health research grant in experimental nutrition.

Dr. Arianna Carughi: Why is the USDA study using Carotenoid Complex™ so important to the average person?

"The USDA study shows three things. One, a low carotenoid diet (or a diet low in carotenoid rich fruits and vegetables) drastically reduces our immune potential. Two, supplementation with Carotenoid Complex™ boosts immune potential as much as 37 percent as demonstrated by significant increases in lymphocyte proliferation and in the number of "natural killer" cells. Both these types of cells are essential players in our immune system's vigilant role to maintain short and long term health. Lymphocyte proliferation is a standard measure of the immune system's ability to defend the body from attack by viruses or bacteria. Three, supplementation with a single carotenoid, beta-carotene, does not have the same immune boosting effect of Carotenoid Complex™, which provides a full spectrum of carotenoids."

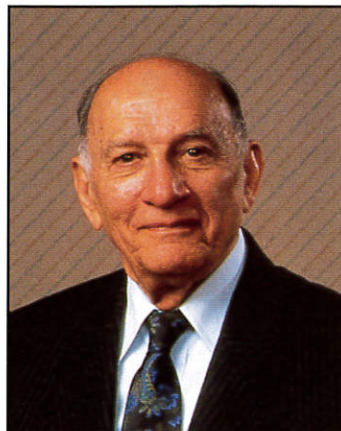


As an expert in the field of human nutrition and biochemistry, Dr. Fred Hooper has written numerous scientific publications, studies, articles, abstracts, and presentations in the field of nutrition. He has participated in research on vitamins, hormones, lipids, and amino acids, and is a noted product formulator and educator.

Dr. Fred Hooper: How does Carotenoid Complex™ enhance immune function?

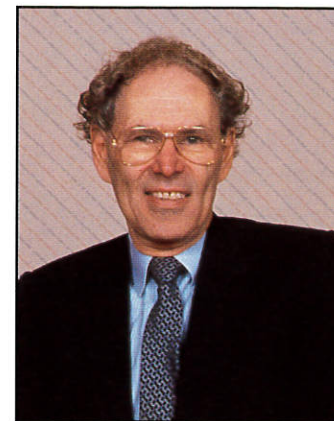
"The immune system is the body's best weapon against infectious diseases because it recognizes viruses and bacteria as foreign material and then destroys them. It also recognizes and destroys cells that have been invaded by viruses and may even be able to recognize and destroy certain tumor cells. Supplementation with Carotenoid Complex™ enhances immune function by strengthening the body's natural defense system, a type of white blood cells called "natural killer" cells. The USDA study measured a 20 percent increase in "natural killer" cells after 20 days of supplementation. A well-functioning immune system appears to be an individual's best defense against all diseases and the best assurance of a good, healthy, long life."

Dr. Arthur Furst, Toxicologist and Distinguished University Professor Emeritus at the University of San Francisco, is the Senior Member of the SAB. Of his many honors, Dr. Furst was recently reconfirmed as a Diplomat of the Academy of Toxicological Sciences, a distinction held by fewer than 100 scientists nationwide. He is recognized as the world's foremost authority on toxicology. He is also internationally recognized as a pioneer cancer researcher, is a member of 15 scientific societies and a Fellow of five, and has written more than 250 publications.



Dr. Arthur Furst: How does all this apply to the prevention of cancer?

"Cancer is a protein foreign to the body. However, the immune system is not normally set up to recognize cancer as a foreign protein. The cancer cells "hide" in the body, thereby giving the cancer cells time to proliferate throughout the system. Supplementation of antioxidants, such as those in Carotenoid Complex™, can strengthen the immune system. As carotenoids boost the body's ability to identify cancer cells, more "natural killer" cells are produced. The body then sends the "natural killer" cells to the cancer site. Because Carotenoid Complex™ strengthens the immune function, it helps the body prevent cancer."

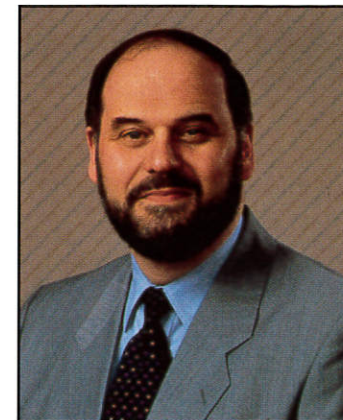


Dr. Lester Packer is currently a Senior Scientist and Professor at the University of California at Berkeley. In the past five years, Dr. Packer has published 17 books and more than 119 scientific journal articles. In 1992, he was awarded the Henkel VERIS Award for significant contributions in clinical applications of vitamin E. He is the internationally recognized leading researcher of antioxidants.

Dr. Lester Packer: What does the latest research tell us about carotenoids and their role in immune function?

"Several lines of evidence indicate beneficial effects of carotenoids on the immune system in fighting disease. Supplementation with a carotenoid has enhanced "natural killer" cells and in vitro (outside of the body) killing of tumor cells by white blood cells. In one intervention trial, beta-carotene supplementation has been reported to reduce the progression of pre-cancerous lesions in the mouths of 70 percent of smokers. Also, suppression of HIV expression has been reported by various biological antioxidants. For example, high doses of beta-carotene supplementation caused a significant increase in total white blood immune cells in one study, suggesting that HIV infection related to AIDS may be retarded by carotenoids."

A world renowned biochemist and expert in phytochemicals, Dr. David Shepherd's nearly 20 years of experience include six scientific publications and the development of 12 patents and extensive food industry experience in more than 40 international markets. Dr. Shepherd currently directs research efforts at the Golden Neo-Life European Technology Center in France.



Dr. David Shepherd: Is it true that supplementation with Carotenoid Complex™ could actually help prevent colds and flu?

"It's amazing that Carotenoid Complex™ is still the only full-spectrum carotenoid supplement on the market, especially since the research on the health benefits of carotenoids are being widely celebrated. It is true that supplementation with Carotenoid Complex™ may help prevent colds and flu because it increases immune function by 37 percent. Results from the USDA study show that Golden Neo-Life's suggested dosage, three Carotenoid Complex™ capsules a day, may increase your immunity."



Chair of the Department of Pathology at a government hospital in Northern California, Dr. Kenneth Hirsch is a Fellow at the College of American Pathologists and the American Society of Clinical Pathologists. Dr. Hirsch was recently appointed to the Volunteer Clinical Faculty as Assistant Professor of Pathology at the School of Medicine, University of California at Davis.

Dr. Kenneth Hirsch: What price do we pay when our immune systems are weak?

"Our immune systems are the first line of defense against the daily assaults of bacteria, viruses, and cellular mutations that threaten our health and well-being. As a pathologist, I see the results of the failure of immunity in the forms of illness, infections, and malignancies every day. This has reinforced my personal decision to do all that I can to keep my immune system as healthy as possible — by proper nutrition, exercise, and daily vitamin and mineral supplements, including Carotenoid Complex™ and Flavonoid Complex™."

With a background in engineering, Mr. John Miller has researched, developed, and marketed more than 500 products in 25 countries, leading to his current position as International Vice President of Science and Technology and member of the Golden Neo-Life Scientific Board.



Mr. John Miller: Is there one group of people who need Carotenoid Complex™ more than others?

"One of the most important things to come out of our research into carotenoids is that biochemistry is universal to all humans. Carotenoids play the same important roles in everyone, everywhere. Therefore, it is safe to say that Carotenoid Complex™ would be of advantage to virtually all of the 5.5 billion of us who share this planet. The greatest advantage would be to those who face the greatest risk — those with dietary carotenoid inadequacies and who therefore have sub-optimal immune potentials, or those, like athletes or other people under physical or emotional stress, with increased exposure to immune challenges. The data tells us that the vast majority of people need carotenoid supplementation. When it comes to immunity, I personally don't think there's such a thing as too much."