"...four of the defining technologies of the 21st century will be nanotechnology, biotechnology, information technology, and environmental science...the potential both for improving the quality and increasing the length of life has never been greater." - Malcom Gillis, President, Rice University.

"...the effort to understand the health benefits of plant foods...is the characterization of their physiologically active constituents, phytochemicals...As our knowledge grows...we will learn how best to create new products through altering their concentrations, combinations and/or their bioavailability." -Functional Foods for Health Program, Department of Food Science and Human Nutrition, University of Illinois, Urbana, IL and * Jean Mayer USDA Human Nutrition Research Center on Aging, Tufts University, Boston, MA

"...antioxidants, which are found in many phytochemicals,...are biologically unstable, poorly soluble in water, and poorly distributed to target sites...we strongly advocate serious consideration of the bioavailability of dietary supplements...to improve their bioavailability using delivery systems such as liposomal formulations. (BioPharma’s NanoSorb® utilizes "nanosized" bio-n-somes)" Yoko Shojia,b, and Hideki Nakashimaa, Nutraceutics and Delivery Systems, Journal of Drug Targeting, 12(6):385-391, 2004.

"...fruits and vegetable phytochemical extracts exhibit strong antioxidant and antiproliferative activities...from the combination of phytochemicals...the additive and synergistic effects of a "complex mixture" of phytochemicals...are responsible for these the benefits...no single antioxidant can replace the combination of natural phytochemicals..."-Lui RH, J Nutr. Potential synergy of phytochemicals in cancer prevention: mechanism of action. Department of Food Science, Cornell University, Ithaca, NY 148532004 Dec;134(12):3479S-85S.

"...phytochemicals often appear in nature as families of related compounds (that)...may behave synergistically...and...activate metabolic enzymes...as a network". - Heber D., Phytochemicals beyond antioxidation, J Nutr. 2004 Nov;134(11):3175S-3176S.

"When phytochemicals are added to the diet, the capacity of human genes to protect and restore optimal health is far greater than previously recognized." -McDaniel M.D., McAnalley, Ph.D., Journal of the National Academy for Child Development: The Role of Phytochemicals in Optimal Health, 1997 Vol. 11, No. 1

"...phytochemicals are the next big thing. The National Cancer Institute is so excited, it has launched a multi-million dollar project to find, isolate and study them. Private firms are eyeing them as a health blockbuster. For among their most intriguing talents is an apparent ability to block the multiple processes that lead to cancer..." -Newsweek Magazine, April 25, 1994

"...people may be able to reduce risk of diseases of aging--including senility--simply by adding high-ORAC foods to their diets," Floyd P. Horn, administrator, Agricultural Research Service’s Human Nutrition Research Center on Aging at Tufts University in Boston.

"Fruits and vegetables are... interesting... for their content in minerals, antioxidant vitamins, phytochemicals and dietary fiber. All these substances are related to lower risk for ...cancer, cardiovascular diseases, type 2 diabetes, obesity, constipation or diverticulosis" - Arcantas J., Fruits and Vegetables, Arch Latinoam Nutr. 2004 Jun;54(2 Suppl 1):65-71.

"Many new studies have shown a link between intake of fruit and vegetables...and protection against CHD (coronary heart disease)...ascribed to their fiber, vitamin, mineral, and phytochemical content. "-Tucker KL.,Dietary Intake and Coronary Heart Disease: A Variety of Nutrients and Phytochemicals Are Important., Curr Treat Options Cardiovasc Med. 2004 Aug;6(4):291-302.

"Knowledge of the role of physiologically active food components, from both phytochemicals and zoochemicals, has evolved as...science has advanced beyond the treatment of deficiency syndromes to reduction of disease risk...the availability of health-promoting functional foods in the US diet has the potential to help ensure a
healthier population...fruits and vegetables represent the simplest form of a functional food...." American Dietetic Association on Functional Foods

"With a greater understanding of biochemistry and human physiology, phytochemicals could well drive the food and supplements industry forward through the 21st century." - Phytochemicals: Nutrients Whose Time Has Comeby Marcia Zimmerman, C.N.

"The Dietary Approaches to Stop Hypertension (DASH) diet substantially lowers blood pressure and reduces blood lipid levels. ... When compared with the control diet, the DASH diet is higher in flavonols, flavanones, flavon-3-ols, beta-carotene, beta-cryptoxanthin, lycopene, lutein+zeaxanthin, and phytosterols...It therefore is possible that the health benefits of the DASH diet are partially attributable to the phytochemicals and might extend beyond cardiovascular disease risk reduction." - Most M. M.,"Estimated phytochemical content of the dietary approaches to stop hypertension (DASH) diet is higher than in the Control Study Diet, J Am Diet Assoc. 2004 Nov;104(11):1725-7.

"There is ample reason to believe that diets rich in phytochemicals provide protection from vascular diseases and many cancers (thru) direct antioxidant activity as well as modulation of enzyme expression or hormone activity...the total dietary load of phytochemicals may have important implications for health." McCarty MF., Proposal for a dietary "phytochemical index", Med Hypotheses. 2004;63(5):813-7.

"The consumption of fruits and vegetables has been reported to improve health and reduce the burden of disease conditions in part probably because of the provision of various forms of phytochemicals with antioxidant properties present in these foods." Lako J, Trenerry C, Wahlqvist ML, Wattanapenpaiboon N, Sotheeswaran S, Premier R.,Total antioxidant capacity and selected flavonols and carotenoids of some Australian and Fijian fruits and vegetables,Asia Pac J Clin Nutr. 2004;13(Suppl):S127.

"Phytochemicals are emerging comprehensive and versatile sources of antioxidants to be consumed to enhance the body's defenses against harmful reactive oxygen species generated endogenously or exogenously...In vitro and in vivo studies have demonstrated convincingly that dietary supplementation of phytochemicals has beneficial effects against certain types of pathogenesis, disease, cancer, and aging". - Ji LL, Peterson DM.,Aging, exercise, and phytochemicals: promises and pitfalls.Ann N Y Acad Sci. 2004 Jun;1019:453-61.

"... phytochemicals not only protect the plant itself ..., but consumption of these chemicals by humans has shown to keep cells in the body healthy and stable in many ways." -Functional Foods...Eating in the 21st Century The Future of Food as Medicine by Marilyn DeMuth-Nakamoto, RD, MS

"Overwhelming evidence... indicates that a plant-based diet can reduce the risk of chronic disease...there are components in a plant-based diet other than traditional nutrients that can reduce cancer risk. More than a dozen classes of these biologically active plant chemicals, now known as 'phytochemicals', have been identified." Scientific basis of biomarkers and benefits of functional foods for reduction of disease risk: cancer, Joseph J. Rafter* Depart-ment of Medical Nutrition, Karolinska Institutet, NOVUM, S-141 86 Huddinge, Sweden

"The biological signal for a plant to synthesize initial micronutrient molecules is maturation of the fruit, vegetable and seed. When fruits and vegetables are picked green, it is before the micronutrient molecules are present."- McDaniel M.D., McAnalley, Ph.D., Journal of the National Academy for Child Development: The Role of Phytochemicals in Optimal Health, 1997 Vol. 11, No. 1

"...experimental studies show that antioxidant vitamins and some phytochemicals selectively induce apoptosis in cancer cells but not in normal cells and prevent angiogenesis and metastatic spread, suggesting a potential role for antioxidants as adjuvants in cancer therapy." Borek C.,Dietary antioxidants and human cancer, Integr Cancer Ther. 2004 Dec;3(4):333-41.

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