



CARL L. KEEN, PhD

Distinguished Professor of Nutrition & Internal Medicine
Department of Nutrition
The Mars Chair in Developmental Nutrition

College of Agricultural & Environmental Sciences

[Department of Nutrition](#)

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BIO

Carl Keen was Chairman of the Department of Nutrition at the University of California, Davis from 1993 to 2006 and a Professor of Nutrition since 1981. He has served on numerous government boards. He has been a member of California's Scientific Advisory Board for the Office of Environmental Health Hazard Assessment since 1993. He has been a member of EPA Environmental Health Grant Review Panels (1990-99), USDA Human Nutrient Requirements Study (1987-92), and several NIH panels (Nutrition Study Section 1997-99; ALTOX Study Section 2002-2004; XNDA Study Section 2004-present). He is past president of the California Nutrition Council (1998). He is a member of the American Society for Nutritional Sciences (ASNS), the American Society of Clinical Nutrition (ASCN), the Teratology Society, the Society for Experimental Biology and Medicine (SEBM), and the American Association for the Advancement of Science (AAAS).

He served on numerous editorial boards including Magnesium Research, Journal of Nutritional Immunology, Journal of Trace Elements in Experimental Medicine, Proceedings of the Society for Experimental Biology and Medicine, Nutritional Neuroscience, and Journal of Nutritional Biochemistry. Carl Keen was awarded the American Institute of Nutrition Graduate Student Research Award (1978), the American Institute of Nutrition Bio-Serv Award in Experimental Animal Nutrition (1985), Outstanding Undergraduate Advisor in the College of Agricultural and Environmental Sciences (1985), and the American Institute of Nutrition Research Award (Borden Award, 1995). Keen was recently recognized by ILSI as a Highly Cited Researcher in the Agricultural Sciences (2002), and he was the 2004 recipient of the Teratology Society's Warkany Award for research accomplishments in developmental biology. Also in 2004 he was a recipient of an Award of Distinction – from the College of Agriculture and Environmental Studies, UC Davis. In 2006, Dr. Keen was appointed as the first holder of the Mars Family Endowed Chair in Developmental Nutrition.

RESEARCH INTERESTS

Dr. Keen's research group has four main areas of focus. The first concerns the influence of diet on embryonic and fetal development. A significant proportion of birth defects are the consequence of embryonic and fetal malnutrition. A thesis in the laboratory is that the correction of suboptimal nutritional deficiencies during early development should result in a marked reduction in pregnancy complications. A second research theme in the group is the study of gene-nutrient interactions, with an emphasis on how subtle changes in cell mineral concentrations influence the expression of select genes. The third major research theme in the group is the study of how diet influences oxidant defense systems and cellular oxidative damage. The fourth area of research in the laboratory is on the effects of diet on the development and progression of vascular disease. A current hypothesis in the laboratory is that the putative cardiovascular health benefits associated with plant food rich diets can be attributed in part to their flavonoid content.