



Steven H. Zeisel, MD, PhD

Dr. Zeisel is a Kenan Distinguished University Professor in Nutrition and Pediatrics; former Chairman, Department of Nutrition; Director Nutrition Research Institute; Director, UNC Human Clinical Nutrition Research Center, Director, UNC Center for Excellence in Children's Nutrition; with the School of Public Health, University of North Carolina at Chapel Hill. Dr. Zeisel received his MD from Harvard, and PhD from M.I.T.

Dr. Zeisel and his research team focus on the essential nutrient choline. In studies on this nutrient they are developing new concepts on individual differences in nutrient metabolism by using new approaches in nutrigenomics and in metabolomics. In addition, the Zeisel team studies nutrient effects on brain development and memory.

In an NIH-funded study, Dr. Zeisel and his team are determining the human dietary requirements for choline. The team is also collaborating in a number of epidemiology studies that examine the relationship between diet, gene SNPs, and risk for breast cancer, colon cancer, birth defects and heart disease.

In another NIH-funded study, the Zeisel team is examining choline's role in brain development. The team has found that in mice and rats, extra choline feeding results in offspring who are smarter on maze testing. The Zeisel team is also currently exploring an alternative hypothesis, that PEMT in fetal brain is very active and that it is the major route for incorporating docosahexaenoic acid into brain. This essential fatty acid is known to be needed for brain development. The team is also starting new projects to examine whether choline influenced development of the retina, and to determine whether choline can change rates of stem cell proliferation in adult brains.