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It's not your Grandmothers cookbook anymore: Chemicals and genes in your food; with the chemicals and genes in you!

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In 2014 is not your Grandmothers cookbook anymore. The chemicals and genes in your food, which interact with the chemicals and genes in you, matter now. Foods contain receptor activators, cellular ligands, co-factors and methylators and some nutrients of course. We recently learned the foods your grandmother or grandfather ate and their obesity may be imprinted on your mothers' and your own DNA, and it may matter more than what you eat in your life; or what you ever ate in the total determination of your lifetime health outcomes? Future methods might be explored to reverse engineer chronic disease by changes in diet to control chronic disease genes.

Common use of Folic acid to significantly reduce neural tube defects by mass methylating early embryonic homeotic DNA genes 'in utero', causes us to see how to employ food genomics in our health systems. Each person must eat to fit innate genomic health potentials. It appears that chemicals and genes in our diet may control the onset, incidence, progression of many of the chronic diseases. In the future might we be able mitigate chronic diseases by diet, lifestyle and environment. The science of nutrigenomics shows a molecular understanding of how dietary chemicals affect your health by altering our individual genetic makeup. Whether chocolate, folate, methionine, betaine, soy, genistein, antioxidants, red wine, vitamin D receptors, exercise, broccoli, anti-oxidants, omega-3 oils, omega-6 oils, soluble or insoluble dietary fiber or a host of thousands of other chemicals will be decided by your unique individual profile and your lifestyle choices.

Biography

Charles C Muscoplat completed his PhD at the age of 26, in 1974 from University of Minnesota and later completed postdoctoral studies at the Memorial Sloan-Kettering Cancer Center in New York, NY. He is the Dean Emeritus of Agricultural, Food and Environmental Sciences at Minnesota, and a McKnight Presidential Leadership Professor of Nutrition and Professor Medicine in the Medical School at the University of Minnesota. Dr. Muscoplat spent 20 years each in private industry and also in academia and has developed commercial drugs for human cancer and arthritis patients. Dr. Muscoplat earlier developed commercial biotechnology products for agriculture and veterinary medicine.

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