

## In memoriam: David Kritchevsky, 1920–2006



David Kritchevsky, internationally known leader in the field of nutrition and chronic disease, died on November 20, 2006, at the age of 86. Born in Kharkov, Russia, he moved with his family to Chicago at a very early age. He received his BS in chemistry (1939) as well as MS in organic chemistry (1942) from the University of Chicago and his PhD in organic chemistry (1948) from Northwestern University. He studied with Nobel Prize laureate Leopold Ruzicka in Zurich from 1948 to 1950 and then joined the University of California at Berkeley Radiation Laboratory, working with Melvin Calvin (another Nobel Prize winner) from 1950 to 1952. He joined Lederle Laboratories in 1952 as part of its Virus and Rickettsial Research Section, where he remained until he joined the Wistar Institute in Philadelphia, Pennsylvania, in 1957. After being promoted as a full member of the Wistar Institute in 1962, Dr. Kritchevsky served as Associate Director in 1975–1991 and was named a Casper Wistar Scholar in 1985, a position he held until the time of his death. During his time at the Wistar Institute, Dr. Kritchevsky also served as Wistar Professor of Biochemistry at the School of Veterinary Medicine as well as Professor of Biochemistry in Surgery at the University of Pennsylvania. Dr. Kritchevsky was part of several graduate

groups at the University of Pennsylvania, including molecular biology, biochemistry and pathology.

The phrase, “he wrote the book on cholesterol,” is actually correct for Dr. Kritchevsky since he published *Cholesterol*, a classic presentation of its chemistry and physiology, in 1958 [1]. In the nutrition community, Dr. Kritchevsky was probably best known for his work with nutrition and chronic disease, mainly atherosclerosis and cancer. Using diets containing cholesterol fed to rabbits, Dr. Kritchevsky and his coworkers explored fatty acid saturation, chain length and other differences in the effects of lipids as a vehicle for dietary cholesterol. The first of the articles in this series, which was the first to observe that polyunsaturated fatty acids were less atherogenic in rabbits as compared with saturated fatty acids, appeared in 1954 [2]; the most recent article came out in 2000 [3]. Perfecting and exploiting another diet regimen, Dr. Kritchevsky was among the first researchers to use a semipurified diet. This diet resulted in hypercholesterolemia in rabbits, a much less dramatic change as compared with results from cholesterol feeding but one that is more in tune with levels observed in humans. It also required a longer time to produce atherosclerosis [4]. Using this diet, Dr. Kritchevsky

examined the role of various sources of lipid, protein, carbohydrate (including dietary fiber) as well as other diet components in atherosclerosis. In spite of the impact of these groups of studies, they merely scratched the surface. Dr. Kritchevsky delved into the regulation of cholesterol and bile acid metabolism as a mechanism for these diet-induced changes and then moved on to the role of diet in cancer, examining the role of both diet components and caloric restriction. His list of accomplishments includes more than 420 research publications!

In recognition of his work, Dr. Kritchevsky received many awards, including a Borden Award from the American Institute of Nutrition (now the American Society for Nutrition), a Philadelphia Award from the American Chemical Society, an Auenbrugger Medal from the University of Graz, a Special Recognition Award from the Council on Arteriosclerosis of the American Heart Association and a Research Achievement Award from the American Institute for Cancer Research. In 2006, the American Society for Nutrition established the David Kritchevsky Career Achievement Award in Nutrition, which will be awarded annually at the Experimental Biology meetings. The first award was presented to Dr. Kritchevsky. Dr. Kritchevsky was a recipient of one of only two remaining National Institutes of Health Research Career Awards, which were first funded in 1961.

Another of Dr. Kritchevsky's talents that many will remember would be his lyric writing. As a graduate student, he began writing lyrics describing metabolic pathways to be sung to the tune of commonly known songs. The best known example is his work with cholesterol synthesis set to the tune of "Jingle Bells." The song became part of his biochemistry lectures, serving to encourage students and provide them with a memory aid. He often commented that, "I'm the only one that allows humming during exams!" The songs also branched out to become a form of satire for the scientific community. A favorite of many was his "If I Had a Big Grant," sung to the tune of "If I Were a Rich Man." His songs were always a reason to make sure there was a piano in the room at any dinner meeting involving Dr. Kritchevsky. The lyrics to many of his songs have been compiled in a book with a commentary by the American Oil Chemists Society [5].

Dr. Kritchevsky's season's greetings poems were a unique product of his creative side. Each year, he would write a poem in which he included the names of many of his friends from the scientific community...some years in

alphabetical order, others in reverse alphabetical order and still others in alphabetical order by state of residence, and so on. Everyone considered inclusion as an honor, and he often received requests to be included in the poem — a sure way to not be included. Each poem ended in a similar manner, expressing an attitude that was Dave Kritchevsky. He would find someone with a name that rhymed with Kritchevsky, providing a footnote to introduce that person, and then end with (from 1992):

Ninety-three — be great, dramatic

Scientifically emphatic

Like works of N. G. Chernyshevsky\*

Good luck, good health from Dave Kritchevsky

\*Nicholas G. Chernyshevsky (1829–1889),  
Russian populist author

Dr. Kritchevsky's contributions to the fields of nutrition, biochemistry and physiology changed the course of science. Similarly, his kindness and friendship changed everyone he met. He is survived by his wife of 58 years, Evelyn, their three children, Barbara, Janice and Stephen, and six grandchildren.

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