John Austin Milner, PhD (1947–2013)1,2

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John A. Milner (1947–2013)

John Austin Milner was born on 11 June 1947 in Pine Bluff, AR, and died unexpectedly of a heart attack on 31 December 2013. He was a dear friend to so many scientists that his passing is an irreplaceable loss to the nutrition community and to all those who were fortunate enough to know him. John had a formidable capacity for work and for multitasking on many different projects while never turning away requests for help from colleagues, never failing to ask provocative questions, and always answering every single e-mail. He had a great sense of humor and a unique ability to integrate science with humanistic considerations. Although most of his own research focused on the anticancer properties of garlic and associated allyl sulfur compounds, his interests gradually expanded to bioactives of all sorts. He was an internationally respected expert in all areas of nutrition and cancer prevention, including nutrigenomics, selenium nutriture, antioxidants and health, and functional foods. For 16 y, he chaired the popular sessions on Saturday mornings sponsored by the International Life Sciences Institute (ILSI) at the Experimental Biology meetings, and he edited several of them for publication.

Early Life

John was the only child of Austin and Lorena Milner. His after-school responsibilities included working on his family’s 100-acre farm; perhaps this is why he had such a strong work ethic. As a child, John loved math and hoped to one day become a math teacher until he changed his mind and decided to become a veterinarian. He was an early leader; he was president of the Future Farmers of America at Watson Chapel High School, and he was also in the marching band. John earned a BS in Animal Sciences from Oklahoma State University in 1969. His original plan was to attend graduate school in veterinary science in Oklahoma, but he was encouraged to take his first airplane flight and interview at Cornell. His PhD was from Cornell University in nutrition, with a minor in biochemistry and physiology in 1974, under the mentorship of Willard Visek, PhD, MD, another luminary in our field and an editor for many years of The Journal of Nutrition. John remained close to his colleagues and professors at Cornell for the remainder of his career, and he had a great affection for the institution (although not its football team). While working on his PhD, John also served in the Army Reserve as a “Weekend Warrior,” completing his basic and advanced individual training in Fort Jackson, SC.

Professional Career

John’s academic career began as an assistant professor at the University of Illinois at Urbana-Champaign in 1975. One of his first postdoctoral students remembered the enormous enthusiasm and productivity of the Milner lab, and the expectation that not 1, not 2, but 8 projects proceed at full steam simultaneously. When Robbie Burns, PhD, unexpectedly arrived from London as a postdoctoral fellow during the Thanksgiving holiday, just as the Milners were entertaining house guests and hosting a large group for the holiday dinner, he and his wife were stunned when John dropped everything, came to pick them up at the station, and insisted that the couple not only join the party but also stay at their home. Within 6 y of his first academic appointment, John became the director of the Division of Nutritional Sciences (1981–1989) and assistant director of the Agricultural Experiment Station, attaining the rank of full professor in 1984. In addition to his other responsibilities, from 1984 to 1989 he also held full professorships in the Departments of Food Science and Internal Medicine at the University of Illinois.

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In 1976, John married Mary Frances Picciano, PhD. This proved to be a long and happy partnership both personally and professionally. Their 2 children, Kristina and Matthew, were always on hand at parties and meetings in their home. In 1989, John and Mary Frances were recruited by The Pennsylvania State University. He served as professor and head of the Department of Nutrition as well as director of the Graduate Program in Nutrition from 1989 to 2000. Both Kristina and Matthew completed undergraduate degrees from Penn State. Matthew, like his father, obtained his PhD at Cornell. Kristina is regional marketing and training director for Lincoln Military Housing. Kristina, like her parents, exemplifies a love of teaching and manages the training and development for her staff of 150.

In both of the universities that John graced with his lively and energetic presence, he made their very good nutrition science programs even better with his intellectual rigor, enthusiasm, and dedication. In 2000, he was recruited for service in the federal government, where he was a dedicated and powerful advocate for nutrition research.

John was a highly prolific scientist with an encyclopedic knowledge of comparative nutrition and of biochemistry. Much of his early work in rats and sheep was devoted to studies of arginine deficiency and its effects on metabolism (1). This interest expanded to other amino acids and other animals, including dogs (2). His first article on selenium focused on its effects on tumor cells in vitro (3), and this interest also expanded to animals and humans. He worked on the cancer-protective effects of selenium for >30 y (4). In addition, much of his work on selenium in humans was conducted in collaboration with Mary Frances, who was an expert on human milk and neonatal nutrition (5).

John was best known for his work on garlic (he reveled in the fact that it was called “the stinking rose”) and its many bioactive components (6). He loved to lecture about garlic, and one of his favorite observations was that heating or microwaving garlic would block the ability of garlic to inhibit cancer but if garlic was crushed and allowed to “stand” for 10 min before microwave heating, all of its cancer-protective effects were maintained (7). This is a practice Mary Frances adhered to when cooking meals with garlic at home.

John's solid grounding in experimental biology and his interest in cancer, bioactives, and disease prevention prepared him well for his subsequent responsibilities at the federal level, leading 2 major groups in the federal government. From 2000 to 2012, he served as a remarkably successful chief of the Nutritional Science Research Group in the Division of Cancer Prevention at the National Cancer Institute (NCI). He was also a champion for the National Food and Nutrition Analysis Program, an interagency effort to obtain funding for food and dietary supplement composition studies of particular relevance to health. While at the NCI, John initiated a number of programs to promote nutrition, including the development of a week-long nutrition and cancer practicum, a “Stars in Nutrition and Cancer” lecture, and a quarterly nutrition and cancer newsletter. However, his true leadership in nutrition was most evident when he was able to develop new NIH funding opportunities for nutrition research, high-quality scientific workshops and conferences, and collaborations among different scientific agencies. He always tried to determine what the next frontiers for nutrition research would be: these included the use of “omics” technologies to better understand the variation in human response to bioactive food components (8) and the role of the microbiome in mediating the effects of these components (9). And he never lost his love of teaching and mentoring young scientists.

In 2012, John joined the Senior Executive Service at the Agricultural Research Service, USDA, and became the director and senior scientist at the USDA Beltsville Human Nutrition Research Center, a position he delighted in. He worked closely and indefatigably with those in other centers as well as with his colleagues elsewhere in the government to bring the Human Nutrition Research Center to the next level of excellence.

John published >280 original research articles, monographs, and book chapters. At the time of his death, he was serving on the editorial boards for Food and Nutrition Research, Frontiers in Nutrigenomics, Nutrition and Cancer, Nutrifood, Journal of Nutritional Biochemistry, Journal of Alternative and Complementary Medicine, Journal of Ovarian Research, and The Journal of Medical Foods. He was also a senior editor for Cancer Prevention Research and an associate editor for the International Journal for Nutrigenetics and Nutrigenomics.

**Contributions to the National and International Nutrition Communities**

John had an outstanding record of community service. He served as both secretary and president of the predecessor organizations to the ASN, in addition to numerous committees involved with publications and other issues. When the American Institute of Nutrition was reorganized to become the American Society for Nutritional Sciences and ultimately ASN, he was very active in the research interest sections groups and served as chair of the Nutritional Sciences Council. John also represented the society in testimony before the House Subcommittee on Appropriations in Washington, DC, and the Presidential Commission on Dietary Supplement Labels in Baltimore, MD.

His dedication to helping professional organizations was not limited to ASN. He also had appointments in other national organizations including the following: chair of the Nutrition Division of the Institute of Food Technologists, secretary/treasurer of the nutrition subdivision of the American Chemical Society’s Agricultural and Food Chemistry Division, and scientific advisor for the Food, Nutrition, and Safety Committee, ILSI. He had been elected as the incoming president of ILSI and would have assumed office in early 2014. John was a member of other professional organizations as well, including the American Association of Cancer Research, American Association for Clinical Chemistry, American College of Nutrition, American Association for the Advancement of Science, and International Society of Nutrigenetics/Nutrigenomics, and was an honorary member of the Academy of Nutrition and Dietetics.

John served in an advisory capacity as a member of the USDA’s Human Nutrition Board of Scientific Counselors, the Joint USDA/Health and Human Services Dietary Guidelines Committee, and the Food, Nutrition, and Safety Committee within ILSI. He served as a member of the National Academy of Sciences Committee on Military Nutrition Research, the U.S. Olympic Committee Dietary Guidelines Task Force, and the External Advisory Board for the Pennington Biomedical Research Center; as a member and vice-chair for the Council of Experts of the U.S. Pharmacopeia Committee on Bioavailability and Nutrient Absorption; a member of the External Advisory Board for the European Commission SeaFood Plus initiative; and as the chair of the World Cancer Research Fund/American Institute for Cancer Research Mechanisms Working Group. At the time of his death, he was a member of the Global Board of...
Trustees for ILSI, liaison to the International Food Information Council, member of the Danone Institute’s International Functional Foods and Health Claims Knowledge Center Committee, member of the Board for the McCormick Science Institute, and member of the Mushroom Research Board.

**Nutrition Legend, Treasured Friend**

Recognition by his peers of his accomplishments is evident from the many awards he received, including, but not limited to, the ASN Kritchevsky Career Achievement Award, the Conrad Elvehjem Award for Public Service in Nutrition, and the American Association of Clinical Chemistry Garry Labbe Award for outstanding contributions to nutritional science. He was an elected fellow of the Institute of Food Technologists, the American College of Nutrition, the American Association for the Advancement of Science, and most recently, the ASN.

On a personal level, he was a wonderful friend, colleague, an always constructive but frank critic, and a provocative but understanding mentor. John was always on hand to assist students and young faculty members with research questions and career advice, or just to offer a joke or some levity. Despite his many professional commitments, John was dependable and would always answer calls or e-mails nearly immediately at any hour of the day.

For 35 yrs, John and Mary Frances were a “nutrition power couple,” attending every Experimental Biology meeting together, as well as many others. They were deeply devoted to each other and to their children, as well as to their many, many friends. Although they had separate careers and interests within the nutrition field, the professional friendships often overlapped. Their lavish entertaining, enhanced by Mary Frances’ gourmet cooking (with garlic!) and John’s jovial hospitality made invitations to join them in their home a great pleasure. Guests at their home were always treated like royalty. Their personal kindness cannot be overestimated.

John was a Colossus in the nutrition science community, a leader, a teacher, and an investigator. He contributed a great deal to raising the status of nutrition science by his dogged work to promote nutrition research in as many ways as possible with as much funding as possible. He will be long remembered for his broad, comprehensive understanding of our field in all of its complexity, and for championing the role of nutrition, nutrigenomics, and dietary bioactive components from the molecular level through to their place in nutrition policy. He was constantly asking questions and pushing those around him to do better work, to think of the bigger picture, and at the same time always to relate work back to human health. He will be sorely missed.

Cheers, John!

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**Literature Cited**


