Memorial Resolution of the Faculty of the University of Wisconsin–Madison
On the Death of Professor Mark E. Cook

Dr. Mark E. Cook, professor in the Department of Animal Sciences, died on September 9, 2017, at the age of 61. Mark was born and grew up in Houma, Louisiana where he married his high school sweetheart, Ellen Burleigh Cook. Mark and Ellen shared many interests, including a passion for immunology research. Together they published articles and obtained a patent focused on inhibition of allergic inflammation by the nutritional supplement, CLA. Mark will be forever loved by his wife of 36 years, and their children, Lynn Gahagan, LeighAnn (John) Carmody, and Cragogue (Elysse). Mark was survived by his parents, Audrey and Ann Cook who recently passed away in 2021 and 2020, respectively; by his brothers, Byron and Kent; and his grandchildren, Isla, Colin, Oliver, Bodin, and Tatum. Mark will also be remembered with love by his numerous nieces, nephews and extended family and dear friends.

As a teen, Mark spent summers working on his uncle's large farm, where he grew to understand many of the concerns faced by commercial livestock producers. His experience there was prophetic. Mark attended Louisiana State University, where he earned a BS in microbiology in 1978, a MS in poultry nutrition in 1980, and a PhD in poultry nutrition and immunology in 1982. After completion of post-doctoral research in the Poultry Science Department at the University of Wisconsin-Madison, Mark accepted a faculty position in the same department in 1983. As his career progressed, Mark developed a prolific research program focused on poultry nutrition and disease. In 2019, Professor Mark E. Cook was inducted into the Poultry Science Hall of Fame. Mark was a self-proclaimed “chickenologist”, who loved to tout the value of chickens to agricultural and biomedical research.

Throughout his research career, Professor Cook was intent on adding value to chicken eggs. He and his students perfected the use of laying hens for the purpose of producing egg yolks containing targeted antibodies. By vaccinating hens with specific peptides, the hens produced egg yolk antibodies with specific immunoreactivity to antigens found in the GI tracts of other species, e.g., pigs, cattle, sheep, and laboratory rodents. Among his countless discoveries in this area was the finding that egg yolk antibodies could be sprayed onto animal feed to replace antibiotics. This application led to two of his several spin-off companies, aOva LLC and AbE Discovery, LLC. These companies were founded on egg yolk antibody technologies that used egg products to enhance feed conversion efficiency and to serve as alternatives to antibiotics in animal feeds. In doing so, these eggs from vaccinated hens had much higher value than table eggs. Mark loved the science odyssey afforded to him by the research with egg yolk antibodies.

Mark's research yielded 50 patents in the US and abroad. These patents, along with his exceptional entrepreneurial talent, were hallmarks of his work. He commercialized his discoveries, spinning off a number of highly productive and successful business enterprises, including Isomark, LLC, which advanced a technology focused on measuring isotopes in the breath as a form of non-invasive early detection of infection.

Dr. Cook was highly regarded in his field for his outstanding contributions to education and science at regional, state, national, and international levels. Over dozens of years, he mentored and trained generations of scientists who are now advancing his knowledge and expertise to make innovative, valuable, and practical contributions in science and the marketplace. Mark was an outstanding faculty citizen of his department, the College of Agricultural and Life Sciences and the UW-Madison campus. While his scientific credentials grew to be acknowledged nationally and internationally, he could still be relied upon to participate in faculty committees at each of these levels. He invested significant time in service to faculty governance at the campus levels, in which he influenced changes in university and industry relationships. One remarkable achievement was co-authorship with Provost Paul DeLuca, of the D2P (Discovery to Product) initiative. The D2P program was designed to bring to commerce the ideas and technology originating within UW-Madison. The initiative continues to nurture entrepreneurship by young scientists on the UW-Madison campus.

Four traits, Enthusiasm, Energy, Vision, and Resourcefulness that Mark displayed throughout his career attracted students to Mark’s classes and his laboratory. After Mark’s death a former student wrote that she remembered Mark as the “crazy chicken guy”. Mark’s devotion to chickens could be likened to that of a
highly virulent pathogen. He infected students with enthusiasm and they have carried his enthusiasm into their careers both in the poultry industry and beyond. Mark was always smiling, nothing seemed to hold back his zest for life. He accepted people as they were and devoted his energy to help them accomplish their potential. Mark could envision what might be, when others were simply clueless. An example of his creativity and out-of-the-box thinking is his patent for alleviation of “hairballs” in cats. If a neighbor brought a hair ball to you with a question, most people might simply acknowledge, yes that is a problem, but Mark had a vision for an opportunity and filed a patent. Students are attracted to those who are resourceful and can provide rapid responses to their questions. Mark’s “can do attitude” instilled confidence in his students that not only infected his students with enthusiasm, energy, vision and resourcefulness, but with an attitude that they could accomplish their potential. This can-do attitude was the key to his attraction to students, which instilled confidence in those who worked with him, regardless of the challenges they faced. One of Mark’s favorite phrases to use with his trainees who were stuck was “two heads are better than one, even if one is a cabbage head.” This provided reassurance that he was there to walk beside students to overcome barriers both in scientific inquiry and sometimes life’s day-to-day struggles.

Mark took his devotion to students beyond poultry and amplified his instructional impact by agreeing to co-instruct the An Sci 101, Introduction to Animal Science course, each Fall semester to nearly 120 students from approximately 2000 through 2016. He desired to teach a large class of freshmen Animal and Dairy Science students because he wanted to impact the professional development of these young scientists early in their careers. His aims were to impart his infectious scientific curiosity and analytical thought process to them. Of course, all of these students came to appreciate that he loved chickens and promoted the species whenever possible. The An Sci 101 was a success because students enjoyed the stimulating nature of Dr. Cook’s instruction and his emphasis of hands-on laboratory experiences. He and his An Sci 101 co-instructor, Dr. David Combs, published a paper (J. Anim. Sci. 92:856-864, 2014) in which they showed that their instruction caused student attitudes to migrate from initial polarity toward centrist views. He promoted active learning in his courses by challenging students to read peer-reviewed science publications, discuss their views, and then write their synthesis of thoughts following this analytical process.

Mark had career long interests in teaching poultry science to undergraduate students. Mark’s outstanding instructional performance in An Sci 512, Management for Avian Health was a core course he developed for the Mid-West Poultry Consortium, Center of Excellence program. He also had a vision for where Animal Science was going, recognizing the need for shifts in curriculum geared towards instruction in animal welfare; he developed two courses entitled Human-Animal Symbiosis, and Law, Ethics and Practice. His energy was un-ending and his impact as an educator and colleague far-reaching. When his PhD students walked across the stage, his parting words to some were, “We are equals now…” again leaving a lasting impression on those who experienced his words of wisdom.

In his final weeks of life, Mark wrote a letter to our department. A couple of key sentences were: “I have had a full life that would be the envy of any” … and … “To my students, graduate students, postdocs and scientists, you will be taken care of…” Mark saw all of his students as family, building a legacy that will last for decades, who will have a broad influence on the Poultry and Animal Sciences fields and society in general. His career embodied the Wisconsin Idea. He is sorely missed by his family, students, and colleagues.

Memorial Committee
Daniel M. Schaefer, Professor
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