Paul J. Bertics, Ph.D., AAI '08

1956–2011

The following remembrance was authored by William W. Busse, M.D., AAI '81, Loren C. Denlinger, M.D., Ph.D., and Richard L. Moss, Ph.D., all colleagues of the late Paul Bertics at the University of Wisconsin. AAI gratefully acknowledges the submission.

Paul J. Bertics, Ph.D., died at home on December 22, 2011, suddenly and unexpectedly. At the time of his death, Bertics held the endowed Robert Turell Professorship and was a member of the Department of Biomolecular Chemistry at the University of Wisconsin (UW) School of Medicine and Public Health. Paul had also been a section editor of *The Journal of Immunology* since 2008.

Bertics was born November 6, 1956, in La Jolla, California, the son of John and Pearl (Tarkowski) Bertics. and was a 1974 graduate of Carlsbad (California) High School. He received his B.S. at the University of California, Los Angeles, in biochemistry, graduating magna cum laude in 1978. Following college, Paul moved to Madison and entered UW to pursue a Ph.D. He was awarded his Ph.D. in physiological chemistry in 1984 under the mentorship of Harry Karavolas, with his thesis on neuroendocrine progesterone-metabolizing enzymes. Paul returned to California for a post-doctoral fellowship at the University of California, San Diego, under the direction of Gordon N. Gill. It was in San Diego that Paul launched his interest in the epidermal growth factor (EGF) receptor and was among the first to describe the kinetic mechanisms surrounding self-phosphorylation of the receptor and its interaction with both ATP and peptide substrates. Signal transduction became a cornerstone of Bertics's ongoing research interests for the next three decades. Paul joined the faculty at the UW Medical School in 1986 and quickly became an indispensable leader in our academic community. Paul's passing, at the prime of his career, poses an inestimable loss for our institution and the research community at large. His death is a great personal loss on many levels for his colleagues, collaborators, and students.

From the time of his arrival in Madison, Paul led a highly successful and productive research program. His laboratory was always abuzz with new and ongoing projects and participants at the bench. His laboratory was populated with technicians, post-doctoral fellows, and Ph.D. and M.D. candidates and students at many stages of training. Each member of his laboratory played an integral role in his program's overall efforts. Each had an independent project, but perhaps what made his laboratory so successful and attractive was the encouragement and support each experienced as part of the team led by Paul and his personal dedication to each person and his or her specific area of study. His personal involvement, interest, and commitment to lab members' work and career exemplified his approach to everything he did professionally and personally.

Paul's initial research focus was an extension and expansion of his post-doctoral experiences and centered on EGF. His laboratory directed its efforts to understanding and defining the importance of EGF to cell proliferation, the linkage of these events to the development of cancer, and the discovery of the signal transduction pathways that were involved in and important to regulation of cell function. His efforts, interests, and skills soon spread to other receptor-signal transduction pathways, including bacterial toxins and their activation of cells including macrophages. His particular interest in endotoxin led to his exploration of purinergic receptors and their role in stimulating inflammation and the linkage of the P2X7 receptor to amplification of endotoxin-induced signals. A third area of research for the Bertics's laboratory was the regulation of human eosinophil function in asthma. Paul and his laboratory provided seminal observations that contributed to an understanding of how IL-5 activated the human eosinophil, the description of the MAP kinase pathways involved, and the functions that these pathways played in regulating cell function, survival, recruitment, generation of lipid mediators, and release of inflammatory mediators, as well as the phenotypic features and functions that distinguished circulating and airway eosinophils. Because Bertics's studies were performed with eosinophils isolated from patients with asthma, his findings had very direct relevance to this human disease.

While Paul had a robust independent research program, he was an invaluable collaborator with scientists in the UW Carbone Cancer Center as well as with investigators in infectious diseases and asthma elsewhere. In each of these joint efforts, his contributions enriched

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the merit of the research and, by his presence, the excitement and enjoyment of work on the project. His laboratory was always a "two-way street" and, with Paul aboard, there was an added and infectious enthusiasm for the research.

Paul received numerous awards for his research including the Dorothy and Charles Inbusch Award for Meritorious Research, the Eli Lilly Biochemistry Award and the highly competitive Kellett Award from UW in recognition of research accomplishments and future potential. Early in his career, Paul received the March of Dimes Basil O'Connor Starter Scholar Research Award and a Shaw Award from the Milwaukee Foundation. His work was most recently supported by five National Institutes of Health grants and a National Science Foundation Award.

Paul's contributions to the medical school were not limited to research alone. At many levels, for undergraduate, graduate, medical, and post-doctoral students, Bertics was an outstanding and inspiring teacher, for which he was often and appropriately well recognized: UW Medical School Student Association Pacemaker Award for Teaching Excellence, UW Medical School Dean's Teaching Award, UW Distinguished Teaching Award-Chancellor's Teaching Award, UW Medical School (Student Selected) Teaching Award, and the UW Medical School Distinguished Teaching Award.

His lectures were exciting, spirited, and appropriately humorous. He was well known for walking into a lecture hall wearing a loud tie and asking whether others thought it was unusually bright in the room that day, only to feign surprise at the brightness of his tie. He always delivered the message understandably and in a context accessible to his audience. Medical students considered him their "dream" teacher. In 2010, Paul was chosen by the students to deliver the graduation address for the medical school graduating class — an honor reflecting the students' perception not only of teaching skills but the importance of a faculty member in their academic career. At a memorial service for Bertics at the UW School of Medicine and Public Health, Dean Robert Golden, who had roots in North Carolina, likened Paul's teaching to "Michael Jordan playing basketball." Dean Golden also announced that the school's teaching award for basic sciences will now be called the Paul Bertics Distinguished Award for Teaching.

Bertics also held another key leadership post in our School of Medicine and Public Health — Chair of the Admissions Committee for the medical school, a position he had held since 1999. This is a position that requires considerable time and, perhaps most importantly, keen insight into the characteristics that best translate into a candidate's becoming a good physician. Paul had the leadership, skill, insight, and grace to handle this critical role extremely well and facilitated the committee's work in identifying medical school candidates who would go on to be excellent and caring physicians.

Paul's life was not all academics. He enjoyed the out-of-doors and was a skilled fisherman with talents for finding the best streams for large trout. A colleague and fishing companion recalled that Paul always caught the most and biggest trout. On a day that Paul could not join a fishing trip, his colleague caught a huge trout. On hearing the news, Paul assured his friend that had he been there *he* would have caught the fish. Paul collected and restored antique tube radios. He loved the guitar, played it every day, and while an undergraduate at UCLA, turned down an offer to be a songwriter for Janet Jackson, opting instead to pursue a financially more promising career in science. Paul was devoted to his family, his wife Sandra, and their daughter Victoria, who has her doctorate in marine geobiology and was a delight in his life. For all his skills and accomplishments, Paul was a humble and unassuming person, with a great sense of humor and infectious laugh. He was someone who put people at ease and made them feel good about themselves and what they were doing. He was an extraordinary person and a great friend and colleague. Paul Bertics will be missed, but his legacy lives on in those who knew and learned from him.