

**MEMORIAL RESOLUTION OF THE FACULTY
OF THE UNIVERSITY OF WISCONSIN-MADISON**

ON THE DEATH OF PROFESSOR PAUL J. BERTICS

Paul J. Bertics, professor of biomolecular chemistry, died suddenly and unexpectedly in his home in Madison on Thursday, December 22, 2011 at the age of 55. At the time of his death, Bertics held the endowed Robert Turell Professorship in the UW School of Medicine and Public Health. He 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 BS in Biochemistry from UCLA, graduating magna cum laude in 1978. Following college, Paul entered graduate school in Madison and was awarded his PhD in physiological chemistry in 1984 under the mentorship of Professor Harry Karavolas, with his thesis focusing on neuroendocrine progesterone-metabolizing enzymes. Paul returned to California for post-doctoral fellowship studies at UCSD under the direction of Professor Gordon N. Gill. It was in San Diego that Paul launched his interest in the Epidermal Growth Factor (EGF) receptor, and he was among the first to describe the kinetic mechanisms surrounding its self-phosphorylation and regulation. Signal transduction became a cornerstone of Bertics' 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 the 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 mentoring 40 graduate students, 15 post-doctoral trainees, several MD/PhD students and numerous undergraduate students. Each member of his laboratory played an integral role in his program's overall efforts, and each had an independent project. But perhaps what made his laboratory so successful and attractive was the encouragement and support each person 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 each lab members' work and careers 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 was centered on the EGF receptor. His laboratory directed its efforts towards understanding and defining the importance of the EGF receptor to cell proliferation, its linkage to the development of cancer, and the discovery of the signal transduction pathways that were involved in and important to regulation of cell function and fate. His efforts, interests, and skills soon spread to other receptor systems and signaling pathways, including bacterial endotoxins 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. Another area of research for the Bertics laboratory was the regulation of human eosinophil function in asthma. Paul and his laboratory provided seminal observations that contributed to a better understanding of how interleukin-5 activated the human eosinophil, describing various signaling pathways involved in regulating cell function, survival, recruitment, generation of lipid mediators and the release of inflammatory mediators, as well as the phenotypic features and functions that distinguished circulating and airway eosinophils. These findings have profound relevance towards understanding asthma.

Paul's influence spread to other fields including engineering where his involvement was integral in the development of strategies to detect and characterize the expression of various isoforms of the EGF receptor in cancer cells utilizing liquid crystal and nanostructured surfaces. Additionally, Paul's involvement helped develop a method for the sensitive detection of lipopolysaccharide (endotoxin) with liquid crystals, published in *Science*. Paul was widely known by students in engineering for his curiosity, enthusiasm and hard questions, and the respect that the engineering faculty had for Paul resulted in his selection as

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co-director in an interdisciplinary research group in the NSF-funded Materials Research Science and Engineering Center on campus. With characteristic flair and energy, Paul directed numerous faculty in engineering toward important problems in the life and medical sciences that were ripe for engineering solutions, and he was pivotal in creating extraordinary opportunities for graduate students and postdocs to work across disciplinary boundaries. 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 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 Chancellor’s Distinguished 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 his teaching skills but also the importance of his inspiration in their career development. 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 named the Paul Bertics Distinguished Award for Teaching. Bertics also held another key leadership post in the School of Medicine and Public Health, serving as chair of the medical student admissions committee from 1999 until his death. This is a position that requires considerable time and, perhaps most importantly, keen insight into the characteristics that best translate into a candidate becoming a good physician.

Paul’s life was not all academics. He enjoyed the out-of-doors and was a skilled fisherman with talents for finding the largest trout in the smallest streams. 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. Paul was devoted to his family, his wife Sandra, and their daughter Victoria, who has a doctorate in marine geobiology, and who 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 in those who knew and learned from him.

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