

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

ON THE DEATH OF ASSOCIATE PROFESSOR KURT W. SAUPE

Kurt W. Saupe, associate professor of medicine, died surrounded by his loving family on June 23, 2012, at the age of 50.

Dr. Saupe was born April 1, 1962, to William (professor emeritus of agricultural economics) and Lorna Saupe in Sheldon, Iowa. The family moved to Madison, Wisconsin in 1965. After two years in Brazil with his family, Kurt returned to Madison in 1971 and completed high school at James Madison Memorial where he was a champion wrestler and track athlete, graduating in 1980. He came to the University of Wisconsin as an undergraduate and received a degree in kinesiology. Competitive sports were a major activity during his undergraduate years; he lettered twice on the track team as a 400-meter hurdler and was a member of the 1984 Big Ten Championship squad. Kurt then went to Penn State University and earned a master's degree in exercise physiology in 1986. He returned to Madison to study physiology, earning his PhD in 1994 in the laboratory of Professor Emeritus Jerome Dempsey. His postdoctoral training was in Boston, Massachusetts, first in the Department of Cardiac Surgery at Children's Hospital in Boston from 1994 to 1995 and then in the NMR Laboratory for Physiological Chemistry at the Brigham and Women's Hospital and Harvard Medical School from 1995 to 1998.

After completing his postdoctoral studies, Kurt became a research assistant professor in the Department of Medicine at Boston University School of Medicine from 1998 to 2001. In 2001, he was promoted to assistant professor in the Department of Physiology and Biophysics at Boston University. He and his wife, Nancy Sweitzer, MD, PhD, were recruited to the Department of Medicine at the University of Wisconsin in 2001, and Kurt became assistant professor in the departments of medicine and physiology at UW-Madison. Subsequently, Kurt was promoted to associate professor in the Department of Medicine.

Dr. Saupe published more than 40 peer-reviewed articles in the fields of pulmonary and cardiovascular physiology. As a postdoctoral fellow, he published highly cited articles in *Circulation*, *Circulation Research*, and *The Journal of Clinical Investigation*. When he returned to UW-Madison as an assistant professor, he focused his research effort on cardiac energetics, with a special interest in AMP-activated protein kinase (AMPK), a ubiquitous master regulator of metabolism. Kurt published several articles detailing the effects of exercise, hypoxia, age, and diet on AMPK activity, not only in the heart but also in other highly energetic organs such as skeletal muscle, liver, and white adipose tissue. His lab was also one of the first to investigate the role of AMPK in brown adipose tissue, which had been shown to be much more important in humans than previously thought. Because AMPK is important in such diverse areas as diabetes, inflammation, and cancer, Kurt's work on AMPK will continue to be an important foundation for the work of others in the future. In recent years, Kurt added an additional focus to his research. His lab began studies related to the potential for cardiac regeneration. Using his previous experience with aging and diet studies, Kurt investigated the problem that adult stem cells are less effective as therapeutic reagents if they're isolated from aged donors. Kurt published two studies on this topic, involving the use of caloric restriction diets as a means to improve the fate of cardiac- and adipose-derived adult stem cells from aged mice.

At the time of Kurt's passing, his lab was developing a new method to transfer stem cells to injured cardiac tissue. The method was novel in that it used fibroblast cells found in normal heart tissue to create an extracellular matrix patch that could hold therapeutic cells. Early results indicated that this method had advantages over previously published matrix patches. Kurt was very excited about this field of research and felt that the technology had the potential to impact not only cardio-regenerative therapies but also delivery of stem cells to other organ systems. This work continues by members of Kurt's lab.

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Kurt was diagnosed with lymphoma in 2007. Several cardiac regeneration and AMPK and stem cell transfer were developed and carried out after this diagnosis. He persevered through multiple rounds of chemotherapy, stem cell transplantation of his bone marrow, and multiple complications arising from this therapy. Some days he could barely walk to his office, yet he remained productive, dedicated, optimistic, and a true inspiration to the members of his research team.

Kurt also excelled at education. He inspired first-year medical students with both the complexities and the beauty of respiratory physiology. He also taught exercise physiology to undergraduates in the Biocore curriculum. He was a devoted and tireless mentor of undergraduate and graduate students in his research laboratory. Perhaps some of Kurt's most passionate teaching came in the form of public outreach as he spoke at the World Stem Cell Summit held in Madison, and other public events on the promise of stem cell research for advancing revolutionary new medical therapies. Dr. Saupe used his own personal experience as a recipient of a stem cell (bone marrow) transplant as a powerful example of the possibilities that stem cell research brings to medicine.

Kurt Saupe represented the best of the University of Wisconsin for almost three decades, first as a student and athlete on the track team, then as a graduate student in respiratory physiology, and ultimately as a faculty member in cardiovascular medicine and physiology. His enthusiasm and friendliness infected his students and colleagues who worked with him passionately to advance the multiple scientific projects that he led during his career. However, his favorite project was his family – his wife and colleague, Dr. Nancy Sweitzer, and their two children, Geneva and Peter. He was generous with his time and talents, and he continues to give with the Kurt W. Saupe Foundation, which reaches out to disadvantaged children.

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