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

## ON THE DEATH OF PROFESSOR BEN-TZION ("BENTZI") KARSH

Ben-Tzion (Bentzi) Karsh was born October 1, 1971 and died August 18, 2012 at the age of 40 from cancer. Bentzi grew up in Milwaukee in a family that cherished education. Bentzi and his three siblings all attended and graduated from the University of Wisconsin-Madison, and a proud family tradition was established.

Bentzi majored in psychology at the UW-Madison where he excelled. During his junior year, he discovered human factors courses in the industrial engineering department, and he was hooked. He spent his senior year almost exclusively on the engineering campus at the laboratory of Professor Michael Smith, taking several classes on human factors, ergonomics and safety. Bentzi earned his bachelor's degree in psychology and a master's degree and doctorate degree in industrial engineering. In the industrial engineering department, he studied and worked with many faculty including Michael Smith, William Reddan, Pascale Caravon, Rob Radwin, Greg Vanderheiden, Barrett Caldwell and Steve Wiker. He worked closely with his advisor Michael Smith on research projects dealing with drug safety, harvesting machinery cab design, office ergonomics, and ergonomic improvements in food processing. When Bentzi graduated with his doctorate degree, he worked as a research scientist with Dr. Larry Chapman in agricultural engineering, dealing with ergonomics and safety in farming. With Professor François Sainfort and then with Professor Pascale Carayon, director of the Center for Quality and Productivity Improvement, he then conducted research dealing with health systems engineering and improving the quality of care. When an opening occurred in the industrial engineering department in 2001, Bentzi was recruited to become a member of both the human factors and ergonomics and the health systems engineering faculties as his interests fit in both camps. In 2007, he was promoted to associate professor with tenure, and in early 2012 Bentzi was promoted to professor of industrial and systems engineering. He was an affiliate faculty with the departments of family medicine, population health sciences and biomedical engineering. Bentzi was very successful as a teacher, research scientist and practitioner of engineering for patient safety and healthcare quality.

Bentzi's research focused on macroergonomics in healthcare delivery systems, in particular with optimizing human interaction with technology in healthcare settings and understanding the relationship between the work system and patient safety in vulnerable populations such as children and the elderly. His research had significant academic and practical impact. His papers are routinely cited; between October 2010 and August 2012, his paper on "Health information technology: Fallacies and sober realities" in collaboration with Matt Weinger, Pat Abbott and Bob Wears, was downloaded over 1,500 times. Bentzi published more than 70 journal papers; his research will continue to produce important research insights for years to come. In recent years, he focused his research on human factors in primary care, an under-studied but critical research area as primary care struggles to find ways to deliver health services in an effective, safe and efficient manner. His research collaborations involved several physicians including Dr. Tosha Wetterneck, Dr. John Beasley and Dr. Matt Scanlon. Bentzi was extremely active and successful in securing research funding, with multiple grants from the Agency for Healthcare Research and Quality and the National Institutes for Health. Known as one of the leading thinkers in applying human factors to healthcare systems, he was invited to lecture worldwide about patient safety and related topics.

Bentzi was a passionate teacher and mentor, taking students to hospitals and physician offices to meet healthcare providers and patients. He was the advisor of numerous graduate students, including five PhD students: Kamisha Hamilton Escoto, Calvin Or, Rich Holden, Sam Alper and Joy Rivera-Rodriguez. He was among the first engineering professors to videotape his lectures, not only to make the lectures more widely available, but also to use them as feedback and improve his teaching delivery style. Bentzi was a perfectionist in his teaching and research. He instilled this same sense in his graduate students. In 2008, he was selected as one of the top 20 UW-Madison alumni under the age of 40. In 2009, Bentzi was inducted into the UW Teaching Academy. Bentzi also taught summer and online courses on human factors engineering and patient safety for healthcare professionals.

Bentzi is survived by his wife Arielle, son Nadav, daughter Emmanuelle, parents Sari and Yehuda, and siblings Tamar Karsh-Fogel, Eyal Karsh and Don Karsh.

Bentzi Karsh served his students, our university, our state, nation and world with remarkable dedication, advising numerous students, scientists, faculty, and other people in both their professional and personal lives. He did so with complete integrity, passion and a high level of compassion and zeal. We have all been enriched by Bentzi's outstanding contributions and service.

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