Memorial Resolution of the Faculty of the University of Wisconsin-Madison
On the Death of Professor Patricia Keely

Patricia (Patti) J. Keely, Ph.D., Professor and Chair of the Department of Cell and Regenerative Biology, lost her gallant and lengthy fight with cancer on June 24th, 2017. Patti was born on March 31st, 1963 to Ruth and John Keely in St. Paul, MN. She is survived by her parents, her brother Pete Keely, her son David Kwong, her husband Tom Powell, and by countless friends. Patti’s lifelong interest in science developed into a professional calling during her undergraduate education at the University of Minnesota. There, she completed an honors research project and graduated summa cum laude in 1985 with a bachelor’s degree in Genetics and Cell Biology. Patti subsequently pursued a Ph.D. under the direction of Drs. Paul Letourneau and James McCarthy and was awarded a doctorate in Cell and Developmental Biology at the University of Minnesota in 1991. She then continued her training as a Lucille P. Markey Fellow in the laboratory of Dr. Samuel Santoro at Washington University School of Medicine. It was here that she began her investigations into the roles of cell-matrix interactions in development and in the cellular differentiation of mammary epithelial cells. She continued this work from 1995-1999 in a second postdoctoral position, and later as a Research Assistant Professor, in the laboratory of Dr. Leslie Parise at the University of North Carolina, Chapel Hill. From 1999 until her death, Patti was a member of the University of Wisconsin-Madison faculty, and in 2013 she was named the Jan and Kathryn Ver Hagen Chair of Translational Research.

Patti began her distinguished career at the University of Wisconsin-Madison in 1999 as an Assistant Professor in the Department of Pharmacology. Her early research on signal transduction and on cell-matrix interactions during development and differentiation subsequently expanded into studies of the invasive and metastatic behaviors of mammary carcinoma cells. She pioneered the assessment of collagen reorganization at the tumor/stromal boundary, demonstrating that aligned collagen fibrils facilitate tumor cell invasiveness and that such aligned fibrils are predictive of patient outcomes. Moreover, she pioneered the use of novel methodologies that enabled use of metabolic signatures to image tumor cell metabolism and the infiltration by tumor cells of stromal populations. Patti had an exceptionally productive career, with numerous high-impact publications and multiple NIH grants as principal and co-principal investigator. Notably, she was recognized for her outstanding research nationally and won awards that included the Susan G. Komen Breast Cancer Award, an American Association for Cancer Research Career Development Award, a Shaw Scientist Award, and a UW-Madison Romnes Faculty Fellowship.

Patti had a strong record of successful collaboration across disciplines, as evidenced both by collaborative U01 and U54 grants and numerous collaborative publications. Soon after joining the UW-Madison faculty, Patti began collaborating with John White at the Laboratory for Optical and Computational Imaging (LOCI). Together they developed cutting-edge imaging techniques for the study of the extracellular matrix of breast tissue and for the in vivo determination of the physiological state of cancer cells. She had the courage, determination and discrimination to invest in a nascent technology that was largely unproven for these applications. This collaboration flourished and allowed her to carry out pioneering work in characterizing collagen reorganization at the tumor/stromal boundary. Her collaborative skills were exemplified by the fact that most of her 83 peer-reviewed publications include co-authors from multiple laboratories and from different countries, with the work funded by successful multi-investigator grant applications.

Patti had extraordinary leadership ability and held several important leadership roles at the UW-Madison, most notably as the Founding Chair of the Department of Cell and Regenerative Biology and as Director of the UW Carbone Cancer Center (UWCCC) Tumor Microenvironment Program. She also served as the principal investigator of the Institutional Research Grant from the American Cancer Society and was a member of multiple steering committees on campus, including that for the Institute for Clinical and Translational Research.
Patti loved mentoring at all levels and has a remarkable record of mentoring students, postdoctoral fellows, and junior faculty towards productive research careers. In her own laboratory, she mentored 15 undergraduate researchers, 14 graduate students, 6 postdoctoral fellows, and 2 scientists. She also served as Director of the Molecular and Cellular Pharmacology (MCP) Graduate Training Program from 2010-2015. In this capacity, she led a yearly fellowship writing workshop and met individually with each of the trainees to guide their careers. As the Founding Chair of the Department of Cell and Regenerative Biology from 2014 until her death, Patti recruited and mentored 3 assistant professors and actively guided the careers of her more senior faculty. Patti was an effective leader and a beloved mentor.

Patti battled cancer repeatedly through her adult life. During her undergraduate years, Patti received her first cancer diagnosis. She survived the brush with Hodgkin’s lymphoma. However, in 2005, Patti was diagnosed with esophageal cancer. This began a second battle with cancer that kept her out of the laboratory for most of 2006 while she underwent major surgery and lengthy recovery. However, Patti demonstrated the determination and resilience for which she was well known and came back strong. In 2016, Patti received a third cancer diagnosis. This time it was pancreatic cancer, and this time her encounter with cancer proved fatal. Throughout her final struggle, Patti exhibited optimism and the passion for life, science, friends and family that had become her trademark. She also maintained a concern for those around her that included writing wills for those in her laboratory as well as for those in her personal life, and continued to nurture both the junior and senior faculty in Cell and Regenerative Biology who were under her leadership. Patti’s warmth, enthusiasm and energy infected all who interacted with her. She saw life as something to be lived and enjoyed to the fullest, regardless of health or even the approach of life’s end, and she brought compassion and kindness to those around her. Patti touched many lives, each in a very different way. Patti’s contributions to the School of Medicine and Public Health, to the University and to the scientific community were substantial. She left behind a remarkable legacy as a world-class scientist, a dedicated mentor, a strong academic leader, and a wonderful person! She is and will continue to be missed.

Memorial Resolution Committee
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