Memorial Resolution of the Faculty of the University of Wisconsin-Madison
On the Death of Professor Emeritus Peter Lipton

Peter Lipton, Professor of Neuroscience, died after a battle with adrenal cortical cell carcinoma in his home, on June 19, 2019 at the age of 79. Patricia, his beloved wife of 56 years, was by his side. Peter was the only child of Ruth and Conrad Lipton of New York City. A few years after his father’s death in an airplane crash, 13-year old Peter, his mother and stepfather settled in England. Peter’s cheerful personality and his love of sports helped him adjust relatively smoothly to his new life as an English schoolboy. He continued his higher education in England, receiving a BA degree in Physics at Oxford University. He was particularly proud of serving as the captain of his college field hockey and tennis teams. Oxford was also the place where he met Patricia, and it remained one of Peter’s favorite places to visit throughout his life.

Following college, Peter earned a Master degree in biophysics at the University of Edinburgh. He went on to obtain a PhD in biophysics in 1969, under the mentorship of Professor Isidore Edelman at the Cardiovascular Research Institute at UCSF. His thesis focused on measuring active sodium transport across the membranes of cells. He completed his postdoctoral fellowship studies with Professor Britton Chance at the University of Pennsylvania working on fluorometric and spectroscopic techniques to study energy metabolism in tissues. Peter was recruited to the faculty of the department of Physiology at UW-Madison Medical School in the summer of 1972 and he remained an active and dedicated faculty member until his retirement in 2019.

Peter’s research interests focused primarily on studying the molecular mechanisms that underlie the damage caused by ischemic insult in the central nervous system. He pioneered the studies of anoxia damage in brain slices of the hippocampus, the formation in the brain that not only plays an important role in the formation of new memories, but also involved in learning and emotions. In early studies his research team has shown that a short duration of oxygen and glucose deprivation causes a long-term failure of synaptic transmission between neurons in CA1 region of hippocampal slices. They went on to demonstrate that the failure is triggered by glutamate and sodium-dependent calcium release from mitochondria during ischemia in hippocampal slices.

It has been recognized that calcium influx through NMDA receptors as well as reactive oxygen species (ROS) play a major role in ischemic neuronal damage. Peter’s research demonstrated that increased cytosolic calcium and ROS cause the permeabilization of lysosomal membrane and the release of cathepsins, a significant mediator of necrotic neuronal damage.

Peter had been active in this medical field for many years and was highly respected for his expertise and contribution to the field. As a testament for his stature studying ischemic damage to brain neurons, the editorial board of the Journal of Physiological Reviews invited him to write a comprehensive review on the topic. Peter read hundreds of research papers on the topic and wrote what seem to be the most extensive review on the subject: a 137-page masterpiece that was widely read. As of this writing, it has been cited 3,435 times.

Peter was well respected not only for his expertise in the field of ischemia, but also for his intellectual depth and insightful approach to wide-broad disciplines in Physiology and Neuroscience. He was an open-minded scholar with a wide range of scientific interests. He was a critical thinker fascinated by innovative new concepts and new discoveries. One could always count on Peter to ask the cerebral question at the end of a seminar, regardless of the topic.

Peter’s was a dedicated, compassionate teacher and a beloved mentor. He played a key role in shaping the foundations of the Neuroscience Training Program at its infancy, and over the years he continued to influence its trajectory toward the prestigious national and international reputation that it currently has. He was active in numerous committees and teaching several graduate courses. His knowledge and insightful scientific thinking, charming personality and boisterous infectious laugh attracted graduate
students and postdoctoral fellows to his laboratory. He had personal interest and commitment to the success of each person in his lab. His mentees describe him as the best mentor they could have wished for and many of them landed professorship positions in various universities around the country.

Peter was a beloved classroom teacher acknowledged by one of his students as a “gem of the UW-Madison neuro faculty.” Before the start of each course he spent hours preparing for his lectures even though he had been teaching those courses for years. He argued that the students deserve to get the most up-to-date information, which require a yearly update. As a result, his office was always overflown with folders and papers organized by a special order known just to him. Shaped by his academic years in Oxford, Peter was a unique tutor who often invited students to his home, extending classroom discussions while enjoying Patricia’s delicious kitchen treats.

He was devoted to undergraduate education and was heavily involved in the drive to finally establish the Neurobiology Major at the UW-Madison. Peter was committed to mentor each of the many undergraduate students that he accepted to his laboratory. Several of his students received the Hilldale Fellowships and the Kimberly-Clark Fellowships. His students often continued their studies in prestigious neuroscience training programs, including programs at Duke and Harvard.

Peter’s contribution to our campus were not limited to his research and teaching. He was a devoted citizen of the department of Neuroscience and of the university. His discussions and actions were based on high ethical standards. He was an attentive listener and a respectful colleague. He always tried to find the good in each one of us and the bright side of every situation. Peter was ahead of the curve decades ago, pushing for the recruitment of more women, insisting that they will elevate the academic status of our department and the Medical School.

Peter was an active member of numerous campus committees that require a commitment and significant amount of time, including the University Committee and the Athletic Board to mention a few. He was also well-respected for his extensive volunteer work in our community at large, most notably being on the board of directors of WORT, the listener-sponsored community radio station. He enthusiastically volunteered his time to participate in local and national politics.

Peter was truly a Renaissance man. In addition to his passion for science and sports he enjoyed painting and became quite good at it. He loved the arts, including theatre, books, music and film. He loved to travel around the world to learn and understand different cultures. He loved good food, he loved wine. He loved life.

In the words of one of his colleagues, “Peter was a huge Force for Good.’ He was humble, always looking for the good of the whole rather than his own. He knew how to relate to others and put people at ease. He had a tremendous compassion for the disadvantaged among us. He was charismatic with a great sense of humor and a boisterous laugh. Peter was a real mensch. He knew how and when to help others without being asked to do so. He brought out the best in all of us.

Peter was larger than life, an amazing person, an extraordinary colleague and a beloved friend. He will be sorely missed by those who were fortunate to know him and to be inspired by him.

MEMORIAL COMMITTEE
Edwin Chapman
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