

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

ON THE DEATH OF PROFESSOR EMERITUS JOSEPH EDWARD HIND (1923-2003)

Joseph ("Joe") Edward Hind joined the faculty of the University of Wisconsin-Madison in 1956 with an appointment in the Laboratory of Neurophysiology, an offshoot of the Department of Physiology. When the Laboratory of Neurophysiology was granted departmental status in 1973, he became its first chairman. Under his chairmanship, between 1973 and 1988, the Department of Neurophysiology flourished. Its faculty grew from 8 to 11, and 73 predoctoral and postdoctoral trainees passed through the department. The combination of scientific expertise with generous, gentle and modest ways made him exceptionally well-liked and respected as a leader and colleague.

Joe Hind was born in Chicago, Illinois, on April 2, 1923. He graduated from Lane Tech High School in Chicago and received a Bachelor of Science Degree in electrical engineering from Illinois Tech in 1944. Between 1945 and 1946 he served as a commissioned officer and radio engineer in the US Naval Research Laboratory in Washington D.C. He returned to the midwest and worked with a succession of preeminent neuroscientists. First, he studied under Dewey Neff at the University of Chicago, earning his Ph.D. in physiological psychology. Then, after postdoctoral training with Hallowell Davis at the Central Institute for the Deaf in St. Louis, Missouri, he was recruited to come to Madison in 1954.

Joe Hind had a multi-faceted career at UW-Madison, making major contributions to science and to this university in basic research, creative technical support, and administration. Almost from the day that he arrived at this university, Joe Hind was responsible for the electronic instrumentation used by the 4 or 5 groups that then made up the Laboratory of Neurophysiology. His deep technical expertise assured that the equipment was reliable and up-to-date. For the first two years he devoted half his time to providing technical support to neurophysiology and the other half to interpreting EEGs at the Wisconsin Psychiatric Institute and doing audiometry at the Diagnostic Center. He was promoted from project associate to assistant professor in 1956. Shortly after his arrival, Joe Hind began a long-lasting collaboration with Jerzy E. Rose, examining how single nerve cells in the mammalian brain respond to sound. Among their seminal contributions was the demonstration that certain nerve cells in the midbrain of mammals accurately encode the split-second delay (tens of microseconds) between the time that a sound first strikes the nearer ear and then the farther ear. This finding initiated the study of how neurons encode the location of a sound source in space. With a succession of other colleagues, Joe Hind and Jerzy Rose undertook an intensive study of the neural code whereby acoustic information is carried from the inner ear to the brain. Their pioneering work resulted in a series of papers that are still frequently cited, nearly 40 years after publication. More recently, working with post-doctoral fellows, Joe Hind compared the spectra of sounds outside the head and at the eardrum, documenting how the shaping of spectra as a function of the angle of incidence of the sounds provides cues for localizing sounds. Their results allow sounds to be presented through earphones that seem to arise from particular locations outside the head. Even after he retired in 1994, he continued to be involved in research. With John Brugge, his longtime friend and collaborator, he worked at recording and interpreting the electrical brain activity of human patients with epilepsy.

Joe Hind's most important technical contribution was to bring to the campus the first dedicated laboratory computer. Together with his colleague, Daniel Geisler, he introduced the LINC to this campus in 1963. This MIT-designed computer, one of only 13 in existence at the time, was awarded to the laboratory after a national competition. It revolutionized the analysis of neuronal responses. Not only did it speed up data analysis by more than two orders of magnitude, but it also provided rapid, "on-line," feedback of processed output that enabled hitherto impossible experiments to be carried out. Word of the LINC quickly spread, attracting medical scientists from diverse departments to see the new computer in

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action. Captivated, a few of them begged time to use it in the evenings for their problems. Automated clinical laboratory analysis and automated patient interviews were thus born on that computer. With the value of dedicated computers so clearly demonstrated, Joe Hind made the far-sighted decision to make such computers generally available to the Medical School. In so doing, he contradicted the university's policy that the university's main computer, then located in Sterling Hall, could handle all of the campus's computing chores even though it required carrying punch-card programs and specially processed data tapes to the Computing Center. Despite opposition, Joe established the Laboratory Computer Facility, directing it between 1965-1968 and 1970-1972, which did indeed make laboratory computers available to all in the Medical School.

As is so forcefully illustrated by his establishment and running of the Laboratory Computer Facility, Joe Hind was extraordinarily supportive of his colleagues. This support was further demonstrated during his time as chair of the Department of Neurophysiology, when he not only administered the department but also truly shared with his colleagues their burdens and their successes. After his retirement from the faculty (January 2, 1994), he witnessed the department's turning full circle. The Department of Neurophysiology merged with the Department of Physiology in 1997. As was typical of him, he was supportive of changes that benefited his colleagues. Those who were privileged to work with him continue to miss his presence but enjoy his legacy. The collegial and supportive tone that he set in the department is felt even now.

Dr. Hind passed away in Madison on July 1, 2003 after a long struggle with Parkinson's disease. He is survived by his wife, Ruth, their sons, David and Thomas, their daughter, Susan, six grandchildren, and one great-grandchild.

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