

Lee Peachey, Biology

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Lee Peachey

Lee DeBorde Peachey, a professor emeritus of biology in the School of Arts & Sciences, died on May 29. He was 92.

Born and raised in Rochester, New York, Dr. Peachey spent his early life discovering twin passions for how things worked and music. He completed his undergraduate studies at Lehigh University, where he was a competitive swimmer, with a BS in engineering in 1953. From 1953 to 1956, he attended the University of Rochester, where he worked with Michael L. Watson, a pioneer of the electron microscope, in the department of radiation biology and biophysics. In 1956, Dr. Peachey transferred to the Rockefeller Institute, where he was the first graduate student of Keith R. Porter, considered by many the father of cell biology. During this period, Dr. Peachey also spent 10 months at Cambridge University working with Sir

Andrew F. Huxley. He earned his PhD from the Rockefeller Institute, which had by then become Rockefeller University, in 1959. That year, he accepted a position as an assistant professor at Columbia University, where he soon advanced to associate professor. In 1965, he came to Penn as an associate professor of biochemistry and biophysics. From 1970 to 1972, he served as the department's chair, then served as a professor until retiring from Penn in 2000.

Dr. Peachey researched the morphology of cells and tissues with the aim of understanding of how structure relates to physiology and biochemistry of function. Over his career, Dr. Peachey used a number of different preparations, including muscle for contraction-excitation coupling and mammalian kidney, thyroid hormone effects on mitochondrial morphology, and others. He specialized in the structure of cells, beginning with specimen preparation for electron microscopy and quantitative analysis of data and evolving to focus on confocal and other types of cutting-edge microscopy as the latter techniques gained in instrumentation and technical breakthroughs. His most cited articles include ones characterizing cellular structure in great detail through electron microscopy and sample preparations for the preservation of exceptional tissue detail. As a Fulbright Scholar and Guggenheim Fellow, Dr. Peachey worked to develop new knowledge on the functioning of muscle cells. He was a pioneer in high voltage electron microscopy, bridging the academic divide between cell biologists and physiologists, and contributed to the installation of North America's first million-volt high-voltage electron microscope.

Dr. Peachey was active in the Pennsylvania Muscle Institute and collaborated with many colleagues across and outside of the University, being well-respected in the field for his expertise in muscle biophysics and structural biology. During his time at Penn, he also served as an adjunct professor in the molecular, cellular and developmental biology department of the University of Colorado, Boulder from 1969 to 1984, and as an international visiting professor at Gunma University's Medical School in Maebashi, Japan, from 1992 to 1995. His research earned him numerous accolades and widespread recognition, and he mentored many undergraduate and graduate students, and postdoctoral trainees.

Dr. Peachey is survived by his wife, Helen; his children, Michael (Julie), Sarah (Daniel) Keating, and Anne Lorenz; his grandchildren, Lauren, Sophie, Lee, and Susanna Peachey, Daniel, Michael, and Patrick Keating, Caroline Keating Gilroy, Connor and Hannah Keating, and Stephen and Brian Lorenz; and his great-grandchildren, Grace, Rory, and Ellie Gilroy. The family requests that donations be made to Natural Lands Trust, honoring Dr. Peachey's lifelong passion for connecting people to open spaces and caring for nature.