



Peter C. Hinkle

November 13, 1940 – May 12, 2017

Peter C. Hinkle (76) died on Friday, May 12, 2017, in Ithaca, NY. Born in Keene, NH, into the musical family of Norwood and Cornelia Hinkle, he spent the first part of his life at The Putney School, VT, where Norwood was the musical director and Cornelia taught piano. He, too, learned to play a musical instrument, the cello. At The Putney School he sang in the chorus and in madrigals, competed in ski jumping and cross-country skiing, but most of all, he was fascinated by all things scientific. After graduation from The Putney School in 1958, he was accepted at Harvard University, where he earned a B.S. in Biochemistry in 1962.

After a summer of bicycling around Europe, he entered the Graduate School at New York University, to work toward a Ph.D. in the laboratory of Professor Efraim Racker at the Public Health Research Institute (PHRI) and New York University. There he first worked on the topic that would form part of his scientific work - oxidative phosphorylation and the energy metabolism of the cell. He became especially excited by the new chemiosmotic hypothesis of Peter D. Mitchell in England. After he received his Ph.D. in 1967, he went to work with Dr. Mitchell on a post-doctoral NIH Fellowship.

Working with Mitchell in England was a unique experience that Peter loved to tell: it was carried out in a mansion that Mitchell owned, the Glynn House, and converted for biochemical research. Mitchell and his assistant Jennifer Moyle founded a charitable organization dedicated to biochemical research and chemiosmotic reactions. Mitchell would later win a Nobel Prize in Chemistry (1978) for his development of the chemiosmotic hypothesis, to which Peter made important contributions.

Peter joined the Section of Biochemistry, Molecular and Cell Biology (BMCB), in the Section of

Biological Sciences at Cornell University in 1969 first as a postdoctoral fellow and in 1973 as an Assistant Professor. He moved up the ranks and served as Chair of BMCB from 1985-1988. During his 44 years of tenure at the University he mentored many undergraduate, graduate, and post-doctoral students.

At Cornell, Peter was part of a group that included Racker, Richard McCarty (former Chair of BMCB), and Andre Jagendorf, that made Cornell the world's leader in elucidating the mechanisms of ATP synthesis. Peter made key contributions to understanding how many electrons (from oxygen) are moved through the electron transport chain to make one ATP molecule (the so-called P/O ratio). A significant contribution to the acceptance of the chemiosmotic theory of ATP production was a seminal review article in *Scientific American*, "How Cells Make ATP", co-written with McCarty. Peter's wife, Maija, also made important contributions to the illustrations in that article.

Besides oxidative phosphorylation and P/O ratios, Peter studied membrane transport and glucose transport. As McCarty wrote, "His lab was the first to show that membranes of animal cells contain an embedded protein that mediates the transport of glucose across membranes".

In the later years, he enjoyed teaching the auto-tutorial introductory biochemistry course, as well as a course in scientific ethics. Peter must have taught biochemistry to literally thousands of Cornell undergrads. He retired in 2014 and was awarded the title of Professor Emeritus. In retirement, he was starting to work on electronic music, incorporating bird songs into his compositions.

Peter is survived by his devoted wife of 51 years, Maija, née Veinbergs; three accomplished sons: Christopher, Paul (Christine Costello), and Benjamin (Ann Walker); four beloved granddaughters: Lillian (Lilly) Jean Hinkle, Kaiva Alexandra Hinkle, Lara Michelle Hinkle and Julia Saffron Hinkle; two brothers: David Currier Hinkle (Patricia Mills), and Steven Currier Hinkle (Margie Bowles), and many nieces and nephews.

Written by Bill Brown, Richard McCarty and Maija Hinkle