

John H. “Jack” Richards 1930–2015

John H. “Jack” Richards, a professor of organic chemistry and biochemistry at Caltech whose research was focused on gaining a molecular understanding of the mechanisms of protein function, passed away on April 23, 2015. He was 85 years old.

Richards used altered proteins obtained from the deliberate mutation of DNA—a process called site-directed mutagenesis—in combination with recombinant and cloning techniques, as well as chemically synthesized polypeptides (chains of amino acids) and their derivatives, to study the mechanisms by which proteins act as catalysts to perform the chemical reactions necessary to life.

Among the proteins of particular interest to Richards were proteolytic enzymes that break apart other proteins; enzymes called lactamases that endow some microorganisms with antibiotic resistance; and

DNA polymerases, the enzymes that build DNA molecules by assembling nucleotides.

Richards was born on March 13, 1930, in Berkeley, California, and earned a BA in 1951 and a PhD in 1955, both from UC Berkeley. He came to Caltech in 1957 as an assistant professor. Richards spent the rest of his career at the Institute and was the chair of the faculty from 1991 to 1993.

Richards also embraced his role as an educator and acted as a mentor to generations of undergraduate and graduate students, as well as to faculty, during his nearly six decades at Caltech.

“Jack was a coadvisor for my thesis work and an incredible mentor. He joyously encouraged and supported risk taking and strongly influenced my entry into the protein engineering field,” says Stephen Mayo (PhD ’88), Caltech’s William K. Bowes Jr. Leadership



Chair of the Division of Biology and Biological Engineering and Bren Professor of Biology and Chemistry.

Richards is survived by his second wife, Minnie McMillan. Richards also leaves behind four daughters from his first marriage (to Marian King), Kathleen, Jennifer, Julia, and Cynthia; and four grandchildren.

To learn more Jack Richard's life and work, visit caltech.edu/news/john-h-richards-1930-2015-46693

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