



## IN MEMORIAM

Howard A. Bern  
Professor of Integrative Biology, Emeritus  
UC Berkeley  
1920 - 2012

Howard A. Bern, Professor Emeritus of Integrative Biology and Research Endocrinologist, Cancer Research Laboratory, University of California, Berkeley, died at his home in Berkeley after a nine-month bout with cancer on January 3, 2012, at the age of 91. With his colleague and friend Aubrey Gorbman, former zoology professor at the University of Washington, Bern co-authored the definitive volume *A Textbook of Comparative Endocrinology* (Wiley) in 1962. They are widely credited with founding the field of comparative endocrinology via that text and their research efforts. Together, they brought comparative endocrinology to Japan, and remained advisors to colleagues and their students in Japan and India for many decades. Bern's own research on the effects of diethylstilbestrol, once given to pregnant women to prevent difficulties with their pregnancies, led to the discovery that in fact exposure of female babies during development caused a diversity of problems. The drug has since been found to be a significant endocrine disruptor, and Bern's discoveries have contributed to that field of research as well. Bern's entire career was spent at Berkeley, and the research of his lab and the scholars who were trained or visited there remains world-renowned.

Bern was honored with the Distinguished Teaching Award in 1972 and the Berkeley Citation in 1990 at the University of California, Berkeley. He was elected a member of the National Academy of Sciences, a Fellow of the California Academy of Sciences and of the American Association for the Advancement of Science, and a member of the American Academy of Arts and Sciences. He was also a member of the Indian National Science Academy, the National Society of Science, Arts, and Letters of Naples, Italy, and the Accademia Nazionale dei Lincei (Italy), in addition to numerous other American and foreign associations and institutions. Bern received honorary doctorates around the world, including the University of Rouen (France) and Yokohama City and Toho Universities in Japan. In 1988 the American Society of Zoologists held a special Symposium, "Evolving Concepts in Chemical Mediation," in honor of Professor Bern, and in 1990 the California Legislature commended him in Assembly Members Resolution No. 966. In 2001 the Howard A. Bern Distinguished Lecture in Comparative Endocrinology was inaugurated by the Society of Integrative and Comparative Biology.

Bern was the author or co-author of 866 scientific papers, and he is co-editor of seven books from *Progress in Comparative Endocrinology* (with W.S. Hoar, Academic Press) to *Applications of Endocrinology to Pacific Rim Aquaculture* (with E. Chang and T. Hirano, Elsevier) and *Neurosecretion and the Biology of Neuropeptides* (with H. Kobayashi and A. Urano, Japanese Scientific Societies Press). Mentor of more than forty-six Ph.D. students, thirty-six M.A. students, thousands of undergraduates, and at least ninety postdoctoral fellows and visiting professors, Professor Bern had a national and international reputation beyond compare among biologists.

Bern's greatest commitment was to his students and their development. His laboratories embraced diversity in all respects beginning in the late 1940s, long before our current view of diversity was formed. Cultural diversity was never an area of controversy for Bern, as it was a fundamental premise of the inquiring environment. It extended to his supporting students arrested for their political actions as in the case of the Free Speech Movement, which he also supported strongly. Many students report that he bailed them out of jail as part of his support. Students from every U.S. ethnic group and from many parts of the world worked in his labs. Bern's primary teaching responsibility was the course in comparative endocrinology that he inaugurated and maintained with constant updates. He also taught or co-taught a diversity of seminars in endocrinology and cancer biology. He had a direct, well-informed manner of lecturing, coupled with a wry sense of humor. As Bern wrote about creative teaching, "I consider creative teaching to lie primarily in the area of individual contact... A one-to-one relationship is indeed of value to the less motivated students, encouraging those of diverse backgrounds to identify with the idea of independent study and to enter domains (academic, professional) that they may have originally considered not open to them. These students often become indistinguishable from those who are initially certain of the paths they wish to follow. In both instances, professor and student learn from each other; it is a two-way interaction. An association becomes a friendship, often lasting far beyond the student's tenure in the professor's laboratory. The differences between professor and student that derive from age, gender, economic status, ethnicity, experience, philosophy, etc., assure that both will be exposed to new ideas and attitudes."

Bern's direct mentoring of so many students was elemental in his nomination for the National Science Foundation Presidential Mentoring award in 2005, a distinction that meant as much to him as any other award he received. Many of his former students wrote letters supporting his candidacy for this prestigious award.

Howard Bern was born in Montreal, Canada, on January 30, 1920. His family moved to Los Angeles, California in 1933 where he became a primary breadwinner during the Great Depression beginning at the age of fourteen. He received his B.A. in 1941 and his Ph.D. in 1948 from the University of California, Los Angeles. He served in the Army (Medical Department) in the Pacific during WWII (1942-6). He began as an Instructor in the Zoology Department at the University of California, Berkeley in 1948 and spent the rest of his career there, retiring as an admired and respected professor. During his post-retirement years, he continued to host former students and colleagues in his office and to stay abreast of his research areas, always able to contribute ideas and insights.

Bern is survived by his wife of 65 years, Estelle; a sister, Judy Brooker of Palm Springs, California; a brother, Gordon Bern of Laguna Hills, California; two children, Lauren Bern (John Bell) of Madison, Wisconsin, and Alan Bern (Alice Abarbanel) of Berkeley, California; six grandchildren, Jesse Bell Bern, Jake Bern, Emma Bell Bern, Ben Bell Bern, Amanda Abarbanel-Rice, and Allison Bell Bern; and two great grandchildren, Ezra Colton Abarbanel and Ariel Zeiler Abarbanel.

We appreciate Alan Bern's permission to use his informative obituary of his father as the basis for including our own comments and discussion.

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