



Dr. EDWARD KATZ

Obituary

EDWARD KATZ, Professor of microbiology and longtime researcher died after a brief illness on 11 April 1994 in Washington, D.C.

ED was born in New York City on 10 August 1923. After serving in the U.S. Navy as a Lieutenant during World War II, he received his B.A. degree from New York University in 1947. He was awarded a Ph.D. in microbiology from Rutgers University in 1951 for his studies on the production and characterization of the antimycobacterial properties of neomycin, which were carried out under the mentorship of SELMAN A. WAKSMAN. He was an assistant professor of bacteriology at the University of New Hampshire from 1951 to 1954 and then returned to the Institute of Microbiology at Rutgers University, where he served as an assistant professor from 1954 to 1960. From 1960 to 1962, he was a visiting scientist in the Laboratory of Clinical Biochemistry at the National Institutes of Health in Bethesda where he pioneered studies on the molecular biology of actinomycin biosynthesis.

ED served on the faculty of the Medical and Dental Schools at Georgetown University from 1962 until he retired in December 1992. At 69 years of age he accepted a new position in the Department of Chemical and Biochemical Engineering of University of Maryland, Baltimore Campus, where he was pleased to offer his years of experience in antibiotic biosynthesis to young graduate students. He had broad research interests in the area of peptide antibiotics and amino acid metabolism. During a sabbatical year at the John Innes Institute in Norwich, England, with DAVID HOPWOOD, he carried out studies on the molecular biology of streptomycetes, successfully cloning the *mel* gene, which specifies the synthesis of the enzyme tyrosinase, from *Streptomyces antibioticus*. The inclusion of this gene in suitable *Streptomyces* plasmids has provided a useful approach for molecular biologists working on this organism. During his productive career, he authored over 100 scientific papers.

ED was a true leader, contributing many new concepts to the field of actinomycin biosynthesis including shifts in component ratios, effects of nutrition and amino acid analogs, controlled biosynthesis of new actinomycins, effects of antibiotics, effect of actinomycin on the producing microorganism, biosynthesis by resting cells, protoplasts and cell-free enzymes, metabolic regulation, and destruction of actinomycin in the soil. His provocative and informative reviews were of great use to both professionals and students, and included such gems as "Peptide Antibiotics; Proteins that Never Grew up?" (Lloydia 31, 354, 1968); "The Peptide Antibiotics

of *Bacillus*: Chemistry, Biogenesis and Possible Functions" (Bacteriol. Revs. **41**, 449, 1977); and his Charles Thom Award address, "Place your Money on the Red; Place your Money on the Black" (Devel. Industr. Microbiol. **31**, 1, 1990). He not only led the world in actinomycin biosynthesis but also contributed to studies on formation of neomycin, gentamicin, sisomicin and etamycin. At the time of his death, he was actively working on biosynthesis of viomycin.

ED was very active in both the American Society for Microbiology (ASM) and the Society of Industrial Microbiology (SIM). He served as ASM's representative to the National Society for Medical Research from 1975 and chaired the Teller's Committee in 1976 and 1980. He was Vice Chair (1970 to 1971) and then Chair (1971 to 1972) of the Fermentation Section of the Agricultural and Industrial Division of ASM. He held similar offices in the Division of Environmental and General Applied Microbiology in 1977 and 1978 and was Chair-Elect (1988) and then Chair of Division O (Fermentation and Biotechnology) in 1988–1990. He also served SIM in various functions and was a participant or convener of number of symposia and seminars for both ASM and SIM. At the time of his death, he was a Director of SIM.

ED was a consultant to the public and private sector, serving the U.S. Justice Department, the Frederick Cancer Research Center, the National Institutes of Health, as well as Schering-Plough, Bristol Laboratories, Abbott Laboratories, American Cyanamid, and Genex Corp. He participated as a member of the international committee to survey the biotechnology programs of both the Faculty of Life Sciences, Tel Aviv University, and the State of Israel. He was on the Editorial Board of *Applied and Environmental Microbiology* from 1973 to 1980 and an Editor of *Applied Microbiology and Biotechnology* until his death. ED served for 25 years as member of the Editorial Board of the *Journal of Antibiotics* reviewing many papers on the formation, genetics and molecular biology of antibiotics. ED was a dedicated teacher who made significant contributions to the education of a large number of practicing physicians and dentists. He mentored an impressive number of pre- and postdoctoral fellows. Many Japanese graduates spent their postdoctoral years in his lab. ED was a stern disciplinarian to his students, demanding excellence, yet he was their friend. He was an outstanding biochemical microbiologist whose students were expertly trained and made ready for their careers. Perhaps what was unique about ED was his commitment to science, evidenced not only by his efforts to train students but also by his passion to work at the bench on a daily basis. ED's passing is a time of mixed emotions for both his students and colleagues in the antibiotic and microbiology fields. We shall miss him dearly but we also rejoice in the realization of how lucky we were that our paths crossed that of ED KATZ.

ED is survived by his wife of 43 years, OLGA; his daughter, JEANNETTE PLATT; and two granddaughters, AMANDA and JESSICA, who were "the apples of his eye."

(ARNOLD L. DEMAIN, HERBERT B. HERSCOWITZ, GARY R. PEARSON)