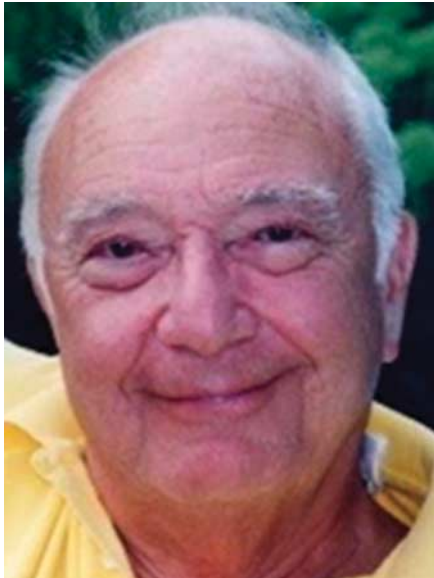


In Memoriam Leonard Cook

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With the death of Leonard Cook on 30 January 2016, the American College of Neuropsychopharmacology lost an important scientist and a significant contributor to the emerging disciplines of behavioral pharmacology and drug discovery. He was a founding member of the ACNP and the first industrial investigator to serve as President in 1982. Trained as a classical pharmacologist, Cook nevertheless was among the first to recognize that the behavior of the whole animal, much like the physiology of its tissues and organs, can provide a quantitatively precise measure of drug action. This cornerstone of behavioral pharmacology was fixed in place early by Cook's now-classic studies of foot-shock avoidance behavior and chlorpromazine-like antipsychotic drugs in rats. Already in 1962, with psychologist Roger Kelleher, he demonstrated that the relative potency of these agents to suppress a conditioned avoidance response in the animal laboratory accurately predicted their therapeutic potency in the clinic (Cook and Kelleher, 1962).

Len Cook was born in 1924 in Newark, NJ, USA. He came from a family of modest means and remembered hawking sodas at baseball games to help in his father's beverage business (Cook, 2010). His undergraduate studies at Rutgers University were interrupted by his service as an Army Air Force navigator in World War II flying on bombing missions in B17's, but were completed after the war. In 1951 he earned a PhD in pharmacology at Yale. Over the strenuous objections of his academic mentor (Cook, 2009; L. Cook interview by L. Stein, 2011), Len then began his lifelong research career in the pharmaceutical industry; characteristically independent from

the beginning, he had declined an academic offer from Harvard Dental School to accept a research position at Smith, Kline & French Laboratories (SK&F) (Cook, 2010). But this proved to be a timely choice. At SK&F, he soon discovered the enzyme inhibitor SKF 525A, which became a key tool for the investigation of drug metabolism. More significantly, SKF 525A stimulated Cook's curiosity in a Rhône Poulenc investigational compound, chlorpromazine, also reported to have general drug-potentiating activity. Following the initial intriguing reports of French clinicians and Rhône Poulenc pharmacologist Simone Courvoisier, Cook became the first pharmacologist in the United States to study the unique behavioral properties of chlorpromazine, the drug generally credited for initiating the modern era of psychopharmacology. Cook's conditioned avoidance test data and his strong advocacy played a significant role in SK&F's propitious decision to license and market chlorpromazine (Thorazine) as its first blockbuster drug.

In 1969, Len left SK&F to head the Department of Pharmacology at Hoffmann-La Roche, where he had broad responsibilities for many areas of drug research. An important focus was the Valium-like antianxiety agents, which Cook evaluated with a refined version of the Geller-Seifter 'conflict' test (then the gold standard for these agents). Again, but now for a distinctly different drug class, Len was able to show that the relative potency of these agents in a laboratory behavioral assay correlated closely with their anxiolytic potency in patients (Cook and Davidson, 1973). In 1983, Cook joined DuPont to lead their new pharmaceutical research efforts in the central nervous system. In particular, DuPont's prospective programs in Alzheimer's disease and senility matched well with Cook's long-standing interest in the discovery of novel agents that might improve memory—a new class of drugs he termed 'cognitive enhancers'. His group discovered several clinical trial candidates for Alzheimer's disease before his retirement as a Senior Research Fellow of the DuPont Corporation in 1992.

In recognition of these contributions, Len was the recipient of many honors. These included the 2006 Pioneer Award of the Collegium International of Neuropsychopharmacology, the 2006 PB Dews Lifetime Achievement Award in Behavioral Pharmacology of the American Society of Pharmacology and Experimental Therapeutics, and the Paul Hoch Distinguished Service Award of the ACNP in 1989. Cook held adjunct academic appointments in pharmacology and psychiatry at several institutions (New Jersey School of Medicine, University of Pennsylvania, and Temple Medical School). He also was a visiting professor at various medical schools in China (Beijing, Shanghai, and Xian). Len served for many years as a consultant to the National Institute of Drug Abuse and the Department of Defence.

Cook recruited and collaborated successfully with a number of talented young scientists and future leaders (L. Cook interview by L. Stein, 2011). These included psychologists Roger Kelleher, Charles Catania, Robert

Schuster, Arnold Davidson, Jerry Sepinwall, and William Holtz, and pharmacologist Keith Killam.

Len had a flair for living, enjoyed travel, and never let challenges or obstacles slow him down. He loved the sea and in later years enjoyed the New Jersey shore and Longboat Key, Florida.

Len was predeceased by his beloved wife, Rheva, and is survived by his children, Steven, Michael, and Sandra. He took great pride in the fact that all of his children were accomplished scientifically with MD or PhD degrees.

REFERENCES

- Cook L (2009). *The Pharmacologist*. **51**: 202–204.
Cook L (2010). *Seltzer Boy, Memoirs of My Life*. Self-publication: Wilmington, DE, USA, pp 185.

- Cook L, Davidson AB (1973). In: Garattini S, Mussini E, Randell LO (Eds). *The Benzodiazepines*. Raven Press: New York.
Cook L, Kelleher RT (1962). Drug effects on the behavior of animals. *Ann N Y Acad Sci* **96**: 315–335.
L. Cook interview by L. Stein (2011). In: Ban TA, Shorter E (eds.) *An Oral History of Neuropsychopharmacology, Volume 1: Starting Up*. American College of Neuropsychopharmacology: Brentwood, TN, USA. pp 121–143.

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