#### CHEMICAL HERITAGE FOUNDATION

**DENNIS A. CARSON** 

Transcript of an Interview Conducted by

Ted Everson

at

San Diego, California

on

12 March 2006

(With Subsequent Corrections and Additions)

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# **DENNIS A. CARSON**

1936	Born in New York, New York on 31 May	
	Education	
Education		
1966 1970	B.A., history, Haverford College M.D., Columbia University	
1970	W.D., Columbia Oniversity	
	Professional Experience	
	University of California, San Diego	
1970-1972	Resident, Internal Medicine	
1974-1975	Postdoctoral Fellow, Department of Medicine	
1988-1990	Adjunct Professor, Department of Medicine	
1990-present	Professor of Medicine, Department of Medicine	
1990-2003	Director, The Sam and Rose Stein Institute for Research on Aging	
	National Institutes of Health	
1972-1974	Clinical Associate, Section on Chemical Immunology, Arthritis	
	and Rheumatism Branch, National Institute of Arthritis,	
	Metabolism, and Digestive Disease	
	Scripps Clinic and Research Foundation	
1976-1980	Assistant Member, Department of Clinical Research	
1980-1986	Associate Member, Department of Basic and Clinical Research	
1986-1990	Member, Department of Basic and Clinical Research	
	University of California, San Diego Medical Center	
2003-present	Director, Moores Cancer Center	
2003-present	Chugai Pharmaceutical Chair in Cancer	
2003-present	Associate Dean for Health Sciences	

# Honors

1966	Phi Beta Kappa
1966	Cope Fellowship
1970	Alpha Omega Alpha
1987	Lee C. Howley, Sr., Prize for Arthritis Research
1995	Elected member, American Academy of Arts and Sciences

Sc.D. (Honorary), University of Aix-Marseille
International Rheumatology Award, Japan Rheumatism Association
Mayo-Soley Award, Western Association of Physicians
Elected member, National Academy of Sciences
American Association for Cancer Research-Bruce F. Cain Memorial
Award
Member, Institute of Medicine
Chester Stock Award, Memorial Sloan-Kittering Cancer Center
BIOCOM Life Sciences Heritage Award, BIOCOM and the Chemical Heritage Foundation

#### ABSTRACT

**Dennis A. Carson** begins the interview with a discussion about growing up in the Atomic Age, moving between the boroughs of New York City. After showing an early interest in chemistry, Carson attended Stuyvesant High School, a well-known school with a sciencebased curriculum. Upon graduating in 1962, Carson decided to attend Haverford College, a Quaker school outside of Philadelphia, hoping to balance his science background with a degree in the liberal arts. While there, he received a research grant from Smith, Kline, and French to study trichimonas and taught in Haverford's laboratories. He earned a B.A. in history and returned to New York City to attend Columbia University's medical school, where he worked in immunologist Elliott F. Osserman's lab experimenting with tissue cultures. After earning his M.D., Carson completed his internship and residency in California before joining the National Institutes of Health's [NIH] Associate Training Program to defer the Vietnam War draft. While at the NIH, Carson worked under Henry Metzger radiolabeling immunoglobulins and assigning affinity labels. In 1974, Carson left to work in Jay Seegmiller's lab at the University of California, San Diego [UCSD]. There, his research centered around ADA deficiency's effect on the immune system. Carson continued this research as an assistant member of the Scripps Clinic and Research Foundation. He spent his time developing, synthesizing, manufacturing, and running trials for Leustatin, a drug for hairy cell leukemia that was approved in 1993. While at Scripps, Carson co-founded Vical a biotech company that develops DNA vaccines. Over the next decade, he founded other drug-development companies such as Triangle Pharmaceuticals, Dynamax Inc., and Salmedix. When Jay Seegmiller retired from UCSD's Sam and Rose Stein Institute for Research on Aging in 1990, Carson took his place as director—splitting his time between research and fund-raising. He left in 2003 to head Moores UCSD Cancer Research Center, where he has two drugs in development. Next, Carson describes the numerous awards and appointments he has received, including nomination to the National Academy of Sciences, a rare feat for a doctor. Carson concludes the interview by discussing San Diego's biotech community and his predictions and concerns for its future.

#### **INTERVIEWER**

**Ted Everson** is the manager for biotechnology, pharmaceutical, and environmental programs at the Chemical Heritage Foundation's Center for Contemporary History and Policy. These programs examine the history of the health science industries in the United States and internationally, and use this historical perspective to explore contemporary and emerging innovation, health, globalization, and environmental policy issues. Everson earned a Ph.D. in history and philosophy of science and technology from the University of Toronto and an M.S. in medical genetics from the University of British Columbia. He is the author of *Approaches to Heredity: A Concise History of the Gene* (published 2007) "Genetic Engineering Methods" in *The Encyclopedia of Twentieth Century Technology* (published 2004), and "Genetics and Molecular Biology" in *History of the Exact Sciences and Mathematics* (published 2002).

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#### NOTES

- 1. Paul de Kruif, *Microbe Hunters* (New York: Harcourt Brace and Co., 1926).
- 2. The Women's Medical College as founded in 1867 in Philadelphia to teach female medical students. In 1970 it was renamed the Medical College of Pennsylvania, and began admitting male students. The Medical College of Pennsylvania still exists today, as a component of Drexel University's College of Medicine.
- 3. As an M.D., Carson had the option of signing up for a commitment in public health service rather than signing up for the draft.
- 4. Good Manufacturing Practices (GMP) refers to the formal set of rules, administered in the US by the Food and Drug Organization, for regulating drug manufacturing.
- 5. Vical was founded in 1987.
- 6. Vical's initial public offering (IPO) was held in 2003.
- 7. Dynavax was founded in 1996 by Carson, Eyal Raz, and Lawrence M. Lichtenstein. The company held its IPO in early 2004.
- 8. The 2002 Sarbanes Oxley Act was passed in the wake of the corporate financial scandals of Enron, WorldCom, and others, initiating far-reaching changes in business financial activity and auditing requirements.

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