### 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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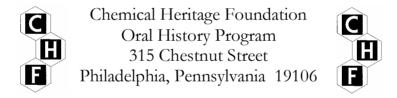
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## **DENNIS A. CARSON**

1936	Born in New York, New York on 31 May			
<u>Education</u>				
1966 1970	B.A., history, Haverford College M.D., Columbia University			
	Professional Experience			
1970-1972 1974-1975 1988-1990 1990-present 1990-2003	University of California, San Diego Resident, Internal Medicine Postdoctoral Fellow, Department of Medicine Adjunct Professor, Department of Medicine Professor of Medicine, Department of Medicine Director, The Sam and Rose Stein Institute for Research on Aging			
1972-1974	National Institutes of Health Clinical Associate, Section on Chemical Immunology, Arthritis and Rheumatism Branch, National Institute of Arthritis, Metabolism, and Digestive Disease			
1976-1980 1980-1986 1986-1990	Scripps Clinic and Research Foundation Assistant Member, Department of Clinical Research Associate Member, Department of Basic and Clinical Research Member, Department of Basic and Clinical Research			
2003-present 2003-present 2003-present	University of California, San Diego Medical Center Director, Moores Cancer Center Chugai Pharmaceutical Chair in Cancer Associate Dean for Health Sciences			
<u>Honors</u>				
1966 1966 1970 1987 1995	Phi Beta Kappa Cope Fellowship Alpha Omega Alpha Lee C. Howley, Sr., Prize for Arthritis Research Elected member, American Academy of Arts and Sciences			

1995	Sc.D. (Honorary), University of Aix-Marseille
2002	International Rheumatology Award, Japan Rheumatism Association
2003	Mayo-Soley Award, Western Association of Physicians
2003	Elected member, National Academy of Sciences
2004	American Association for Cancer Research-Bruce F. Cain Memorial
	Award
2005	Member, Institute of Medicine
2005	Chester Stock Award, Memorial Sloan-Kittering Cancer Center
2005	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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