

CHEMICAL HERITAGE FOUNDATION

KAI ZINN

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Steven J. Novak

at

The California Institute of Technology
Pasadena, California

on

14, 21, 27 September and 4 October 1994

From the Original Collection of the University of California, Los Angeles

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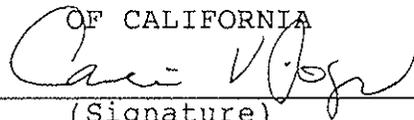
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California Institute of Technology
Pasadena, California 91125

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Date October 4, 1994

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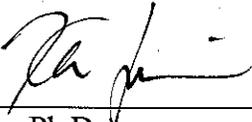
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Kai Zinn, Ph.D.

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KAI ZINN

1955 Born in Berkeley, California on 24 July

Education

1977 B.A., University of California, San Diego
1984 Ph.D., Harvard University

Professional Experience

1984-1985 Harvard University
Postdoctoral Fellow

1985-1989 Stanford University and University of California, Berkeley
Postdoctoral Fellow

1989-1995 California Institute of Technology
Assistant Professor
1995-present Associate Professor

Honors

1978-1981 Predoctoral Fellowship, National Science Foundation
1985-1988 Postdoctoral Fellowship, Helen Hay Whitney Foundation
1990-1992 Alfred P. Sloan Research Fellowship in Neuroscience
1990-1992 Basil O'Connor Starter Scholars Award, March of Dimes
Foundation
1990-1993 McKnight Foundation Scholars Award
1990-1994 Pew Scholar in the Biomedical Sciences
1994-1997 McKnight Foundation Investigator Award

Selected Publications

Zinn, K. et al., 1983. Identification of two distinct regulatory regions adjacent to the human β -interferon gene. *Cell*, 34:865-79.
Zinn, K. and T. Maniatis, 1986. Detection of factors that interact with the human β -interferon regulatory region *in vivo* by DNAase I footprinting. *Cell*, 45:611-18.
Zinn, K. et al., 1988. 2-aminopurine selectively inhibits the induction of β -interferon,

- c-fos, and c-myc gene expression. *Science*, 240:210-13.
- Zinn, K. et al., 1988. Sequence analysis and neuronal expression of fasciclin I in grasshopper and *Drosophila*. *Cell*, 53:577-87.
- Elkins, T. et al., 1990. Genetic analysis of a *Drosophila* neural cell adhesion molecule: Interaction of fasciclin I and Abelson tyrosine kinase mutations. *Cell*, 60:565-75.
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- Desai, C.J. et al., 1996. Receptor tyrosine phosphatases are required for motor axon guidance in the *Drosophila* embryo. *Cell*, 84:599-609.

ABSTRACT

Kai Zinn was born in Berkeley, California, but grew up in Los Alamos, New Mexico. His father, now retired, was a chemist working on weapons research; his mother, who came to the United States from Germany after World War II, teaches German. Zinn had two brothers, but one was killed when he was fourteen. During high school, Zinn became an Explorer Scout and began to engage in outdoor activities like rafting, climbing, skiing, hiking.

Zinn decided to attend the University of California at San Diego, where Paul Saltman inspired him to major in chemistry. During his last year in college Zinn worked on an independent study with Jack Kyte. After graduation Zinn had planned to travel, but he fell at Yosemite National Park and broke his leg, so he ended up back at Kyte's lab for a month or so during that summer. Then he spent a year just traveling, visiting Nepal, Thailand, and the Virgin Islands. During his travels he picked up giardia and was ill for several months.

Kyte helped persuade Zinn to go to Harvard for his PhD. There he worked on SV40 in Mark Ptashne's lab. While at Harvard, Zinn and Pamela J. Bjorkman, who was working on HLA (histocompatibility locus antigen) in Don Wiley's lab, met and married. Zinn next moved to Tom Maniatis's lab to work on interferon. After that, tired of interferon, Zinn moved to Corey Goodman's lab. Pamela stayed another year at Harvard, finally finishing the structure of HLA. After joining Zinn in California, Pamela discovered that she was pregnant with their son Leif. Zinn finished his postdocs at Stanford and Berkeley and then accepted a job at California Institute of Technology, where he is now an associate professor. He continues to publish, teach, read novels, work less than he would like on the bench, and spend time with his son, Leif, his daughter, Katya, and his wife.

UCLA INTERVIEW HISTORY

INTERVIEWER:

Steven J. Novak, Senior Editor, UCLA Oral History Program. B.A., History, University of Colorado; Ph.D., History, University of California, Berkeley; M.B.A., UCLA Graduate School of Management.

TIME AND SETTING OF INTERVIEW:

Place: Zinn's office, California Institute of Technology.

Dates, length of sessions: September 14, 1994 (118 minutes); September 21, 1994 (107); September 27, 1994 (107); October 4, 1994 (51)

Total number of recorded hours: 6.4

Persons present during interview: Zinn and Novak.

CONDUCT OF INTERVIEW:

This interview is one in a series with Pew scholars in the biomedical sciences conducted by the UCLA Oral History Program in conjunction with the Pew Charitable Trusts's Pew Scholars in the Biomedical Sciences Oral History and Archives Project. The Project has been designed to document the backgrounds, education, and research of biomedical scientists awarded four-year Pew scholarships since 1988. To provide an overall framework for Project interviews, the director of the UCLA Oral History Program and three UCLA faculty project consultants developed a topic outline. In preparing for this interview, Novak held a preinterview conversation with Zinn to obtain written background information (curriculum vitae, copies of published articles, etc.) and to agree on an interviewing schedule. He also reviewed prior Pew scholars' interviews and the documentation in Zinn's file at the Pew Scholars Program office in San Francisco, including his proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members. For technical background, Novak consulted J.D. Watson et al., *Molecular Biology of the Gene*. 4th ed. 2 vols. Menlo Park, CA: Benjamin/Cummings, 1987, and Bruce Alberts et al., *Molecular Biology of the Cell*. 3d ed. New York: Garland, 1994. The interview is organized chronologically, beginning with Zinn's childhood in Los Alamos, New Mexico, and continuing through his education at University of California, San Diego, his graduate work at Harvard University, his postdoc with Corey S. Goodman, and the establishment of his own lab at California Institute of Technology. Major topics discussed include cloning the interferon gene, cooperativity in gene regulation, footprinting interferon, the SP6 RNAase protection assay, sequencing fasciclin I in *Drosophila*, olfactory research, and the rewards and difficulties of a career in research.

ORIGINAL EDITING:

Betsy Ryan, editor, edited the interview. She checked the verbatim transcript of the interview against the original tape recordings, edited for punctuation, paragraphing, and spelling, and verified proper names. Words and phrases inserted by the editor have been bracketed.

Zinn reviewed the transcript. He verified proper names and made minor corrections.

Kristian London, assistant editor, prepared the table of contents and the interview history.

Kathleen McAlister, editorial assistant, assembled the biographical summary. Derek J. DeNardo, editorial assistant, compiled the index.

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