CHEMICAL HERITAGE FOUNDATION

TIAN XU

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Helene L. Cohen

at

Yale University Medical School
New Haven, Connecticut

on

11, 12, and 13 July 2000

ACKNOWLEDGEMENT

This oral history is part of a series supported by a grant from the Pew Charitable Trusts based on the Pew Scholars Program in the Biomedical Sciences. This collection is an important resource for the history of biomedicine, recording the life and careers of young, distinguished biomedical scientists and of Pew Biomedical Scholar Advisory Committee members.

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REFORMATTING:

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Interviewee agrees to participate in a series of University-conducted tape-recorded interviews, commencing on or about July 10, 2000, and tentatively entitled "Interview with Tian Xu". This Agreement relates to any and all materials originating from the interviews, namely the tape recordings of the interviews and a written manuscript prepared from the tapes hereinafter collectively called "the Work."

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6. All notices and other official correspondence concerning this Agreement will be sent to the following:

If to University: Oral History Program
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Attention: Director

If to Interviewee: Tian Xu
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Yale University
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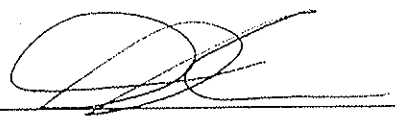
New Haven, CT 06536-0812

University and Interviewee have executed this Agreement on the date first written above.

INTERVIEWEE



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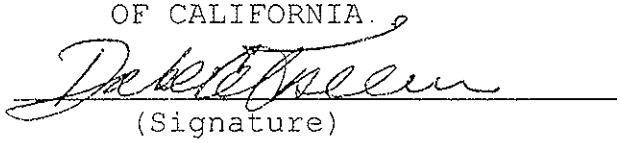

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(Title)

Date August 1, 2000

Pew Scholars in the Biomedical Sciences

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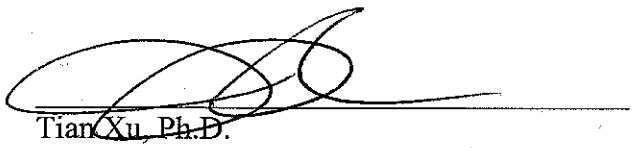

Tian Xu, Ph.D.

3/4/08

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TIAN XU

1962 Born in Jiaxing City, Zhejiang, China, on 2 June

Education

1982	B.A., Genetics, Fudan University
1987	M.S. and M.Ph., Biology, Yale University
1990	Ph.D., Developmental Biology, Yale University

Professional Experience

University of California, Berkeley, California

1990-1993 Postdoctoral Fellow

Yale University

1993-1998	Assistant Professor of Genetics
1997-present	Assistant Investigator, Howard Hughes Medical Institute
1998-present	Associate Professor of Genetics

Honors

1990-1993	Helen Hay Whitney Fellowship
1995-2000	Pew Scholar in the Biomedical Sciences
1997-present	Howard Hughes Investigator Award

Selected Publications

Xu, T. and G.M. Rubin, 1993. Analysis of genetic mosaics in developing and adult Drosophila tissues. Development 117:1223-37.

Xu, T. et al., 1995. Identifying tumor suppressors in genetic mosaics: The Drosophila lats gene encodes a putative protein kinase. Development 121:1053-63.

RookeJ. et al., 1996. KUZ, a conserved metalloprotease/disintegrin protein, plays two distinct roles during Drosophila neurogenesis. Science 273:1227-3 1.

Haddad, G.G. et al., 1997. Genetic basis of tolerance to O2 deprivation in Drosophila melanogaster. Proceedings of the National Academy of Science USA 94: 10809-12.

Rooke, J.E. and T. Xu, 1998. Positive and negative signals between interacting cells for establishing neuronal fate. Bioessays 20:209-14.

Yavari, R. et al., 1998. Human metalloprotease-disintegrin Kusbanian regulates

sympathoadrenal cell fate in development and neoplasia. Human Molecular Genetics 7:1161-67.
Theodosiu, N.A. et al., 1998. Slimb coordinates wg and dpp expression in the dorsal-ventral and anterior-posterior axes during limb development. Development 125:3411-16.
Tao, W. et al., 1999. Human homolog of the Drosophila lats tumor suppressor modulates CDC2 activity. Nature Genetics 21:177-81.
St. John, M. et al., 1999. Mice deficient for Lats1 develop soft tissue sarcomas, ovarian tumors, and pituitary dysfunction. Nature Genetics 21:182-86.
Huang, H. et al., 1999. PTEN affects cell size, cell proliferation, and apoptosis during Drosophila eye development. Development 126:5365-72.
Potter, C.J. et al., 2000. Drosophila in cancer research: An expanding role. Trends in Genetics 16:33-39.

ABSTRACT

Tian Xu was born in Jiaxing City in Zhejiang Province in China, the older of two children. His father, who was from a wealthy family, was a dean; his mother began work in a silk factory and rose to become a CEO until the Cultural Revolution sent her to a labor camp. The Cultural Revolution caused the whole family much suffering: his parents had to endure "reeducation"; the family had to move to a shack; and Xu's schooling was negatively impacted (he took up the game of Go as a means of keeping himself challenged mentally). He felt that his schooling had been inadequate, but with his family's support he prepared himself for the national examination to enter college; this examination was reinstituted after the end of the Cultural Revolution.

Xu decided to major in genetics at Fudan University in Shanghai, China, and he studied under C.C. Tan. When a famous mathematician, Shiing-Shen Chern, returned to Xu's hometown from University of California, Berkeley, Xu resolved to go to the United States, initially enrolling in the City College of New York. His first impressions of New York City were not good, and so he decided to leave, being accepted at Yale University where he entered Spyros Artavanis-Tsakonas's lab. Though he had left China planning to return, he ultimately decided to remain in the United States, with the exception that he returned to China to marry Wan Yu, whom he had met when he was a student at Fudan. Xu stubbornly resisted learning English until he was in Gerald Rubin's laboratory at University of California, Berkeley; he had gone there at Artavanis-Tsakonas' instigation, as the lab was the best in Xu's field. Xu found the mentoring and lab-management styles of Artavanis-Tsakonas and Rubin very different.

He accepted a principal investigator position at Yale and strove to overcome his difficulties in writing English. At Yale he helped develop a successful introductory genetics course as he considered it very important to spur student interest in science.

Xu concludes the interview talking about his interest in spending a sabbatical in the Amazon, studying ants, in which he has always been interested, after which he discusses his leisure activities, which revolve primarily around spending time with his daughters and his wife. He also talks about patents and intellectual property; wanting to conduct innovative research projects; ethical questions in science, especially issues surrounding cloning; the need for both collaboration and competition in science (he himself collaborates with Gabriel G. Haddad on locating genes responsible for hypoxia resistance); and issues of ethnicity and gender in American science. The interview ends with an explanation of his current research on cancer and the LATS and DRPLA genes; his motivation for pursuing science; the advantages and disadvantages of being a principal investigator; and an evaluation of his professional and personal goals.

UCLA INTERVIEW HISTORY

INTERVIEWER:

Helene L. Cohen, Interviewer, UCLA Oral History Program. B.S., Nursing, UCLA; P.N.P., University of California, San Diego/UCLA; M.A., Theater, San Diego State University.

TIME AND SETTING OF INTERVIEW:

Place: Xu's office, Yale University Medical School, New Haven, Connecticut.

Dates, length of sessions: July 11, 2000 (116 minutes); July 12, 2000 (107); July 13, 2000 (98).

Total number of recorded hours: 5.5

Persons present during interview: Xu and Cohen.

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, Cohen held a telephone preinterview conversation with Xu to obtain written background information (curriculum vitae, copies of published articles, etc.) and agree on an interviewing schedule. She also reviewed prior Pew scholars' interviews and the documentation in Xu'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, Cohen consulted J.D. Watson et al., *Molecular Biology of the Gene.* 4th ed. Menlo Park, California: Benjamin/Cummings, 1987; Bruce Alberts et al., *Molecular Biology of the Cell.* 3rd ed. New York: Garland, 1994; Horace F. Judson, *The Eighth Day of Creation.* New York: Simon and Schuster, 1979; and recent issues of *Science* and *Nature.*

The interview is organized chronologically, beginning with Xu's childhood in Jiaxing City, China, and continuing through his undergraduate work at Fudan University, his graduate work at City College of New York and Yale University, his postdoc at University of California, Berkeley, and the establishment of his own lab at Yale University. Major topics discussed include the impact on Xu and his family of the Chinese Cultural Revolution, his decision to come to the United States for graduate study, and his current research on cancer and the *LATS* and *DRPLA* genes

ORIGINAL EDITING:

Stephen Wilson, editorial assistant, edited the interview. He 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.

Xu reviewed the transcript. He verified proper names and made a number of corrections and additions.

William Van Benschoten, editor, prepared the table of contents. Wilson assembled the biographical summary and interview history. Deborah Truitt, editorial assistant, compiled the index.

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