

CHEMICAL HERITAGE FOUNDATION

HONG SUN

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

William Van Benschoten

at

Yale University School of Medicine
New Haven, Connecticut

on

14 and 15 January 2003

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



Hong Sun

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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Kim Phan, Program Intern, Oral History, Chemical Heritage Foundation. B.A. expected 2011, Anthropology, Cornell University.

David J. Caruso, Program Manager, Oral History, Chemical Heritage Foundation. B.A., History of Science, Medicine, and Technology, Johns Hopkins University; PhD., Science and Technology Studies, Cornell University.

UNIVERSITY OF CALIFORNIA, LOS ANGELES

Oral History Interview Agreement No. R022103G

This Interview Agreement is made and entered into this 21 day of February, 2003 by and between THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a California corporation, on behalf of the Oral History Program at the UCLA campus, hereinafter called "University," and HONG SUN, having an address at Department of Genetics, School of Medicine, Yale University, 333 Cedar Street, New Haven, Connecticut 06520-8005, hereinafter called "Interviewee."

Interviewee agrees to participate in a series of University-conducted tape-recorded interviews, commencing on or about January 13, 2003, and tentatively entitled "Interview with Hong Sun." 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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3. Interviewee acknowledges that she will receive no remuneration or compensation for her participation in the interviews or for the rights assigned hereunder.
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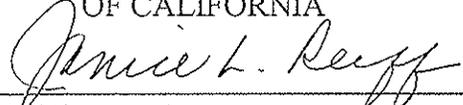
If to Interviewee: Hong Sun
Department of Genetics
School of Medicine
Yale University
333 Cedar Street
New Haven, CT 06520-8005

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

INTERVIEWEE

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA


(Signature)


(Signature)

Hong Sun
(Typed Name)

Janice L. Reiff
(Typed Name)

Yale University
(Address)

Interim Director, Oral History Program
(Title)

Department of Genetics

New Haven, CT 06520-8005

Date Jan. 15, 2003

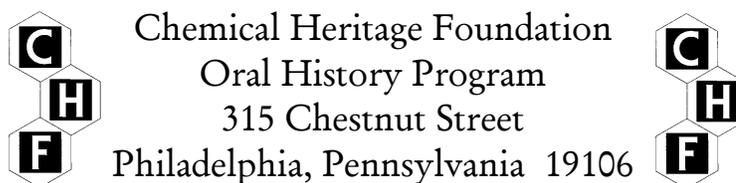
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HONG SUN

1958 Born in Beijing, China

Education

1982 B.M., Beijing Medical College, Beijing, China
1991 Ph.D., Harvard University

Professional Experience

1991-1995 Cold Spring Harbor Laboratory
Postdoctoral Study

1995-present Yale University, School of Medicine
Associate Professor, Department of Genetics

Honors

1983 First Place, CUSBEA Examination
1992 Damon Runyon-Walter Winchell Postdoctoral Fellowship
1996-2000 Pew Scholars Program in the Biomedical Sciences Grant
2003-2007 American Cancer Society Research Scholar

Selected Publications

- Li, D-M. and Sun, H. (1997) TEP1, encoded by a candidate tumor suppressor locus, is a novel protein tyrosine phosphatase regulated by TGF β . *Cancer Research*, 57, 2124-2129.
- Li, D-M. and Sun, H. (1998) PTEN/MMAC1/TEP1 suppresses tumorigenicity and blocks cell cycle progression in human glioblastoma cells. *Proc. Natl. Acad. Sci. USA* 95, 15406-15411.
- Sun, H., Lesche, R., Li, D-M., Liliental, J., Zhang, H., Gao, J., Gavrilova, N., Mueller, B., Liu, X. and Wu, H. (1999) PTEN modulates cell cycle progression and cell survival by regulating PIP3 and Akt/PKB signaling pathway. *Proc. Natl. Acad. Sci. USA* 96, 6199-6204.
- Mihaylova, V.T., Borland, C., Stern, M.J., and Sun, H. (1999). The PTEN tumor suppressor homolog in *C. elegans* regulates longevity and dauer formation in an insulin-receptor like signaling pathway. *Proc. Natl. Acad. Sci. USA* 96:7424-7432.
- Mamillapalli, R., Gavrilova, N., Mihaylova, V.T., Tsvetkov, L.M., Wu, H., Zhang, H., and Sun,

H. (2001). PTEN regulates the ubiquitin-dependent degradation of the CDK inhibitor p27Kip1 through the ubiquitin E3 ligase SCF(Skp2). *Curr. Biol.* 11:263-267. December 16, 2003

ABSTRACT

Hong Sun was born and raised in Beijing, China, during the Cultural Revolution, the older of two siblings. Both of her parents were physicians who, later in their careers, focused more on medical research than practice—her mother in pathology, her father in immunology. Life during the Revolution provided a “chaotic” education at times, including a year of re-education in the countryside at the end of high school, and also family separation (Sun’s parents were sent to the countryside for several years for re-education, while Sun remained in Beijing under her grandmother’s care).

The rise of Deng Xiaoping to power after Chairman Mao brought a return of the college admission program, giving Sun the ability to develop and pursue her interest in science, attending Beijing Medical College, from which she received her medical degree. She also took part in the basic research program at the medical school, studying the binding affinity of monoclonal antibodies against aflatoxin for her thesis. Wanting to move more into research Sun received first place in the China United States Biochemistry Examination and Admission (CUSBEA) program examination and attended Harvard University for her doctoral study on the merits of its prestige, especially in the field of biomedical science. At Harvard, while adjusting to American culture, Sun worked with Jack W. Szostak on the recombination process in meiosis. From there she moved on to a postdoctoral position at Cold Spring Harbor Laboratory in New York with Nicholas K. Tonks researching the protein tyrosine phosphatase and MKP-1—her husband, also a scientist, took a position there as well. Interested most by research, Sun sought out a position at a research university, and, along with her husband, took a position at Yale University.

Throughout the interview, Sun compares various aspects of American and Chinese life and culture, including the educational systems and the practice of science. At the end of the interview she discusses her time at Yale, including setting up her laboratory, learning about the tenure process, teaching, and balancing her family and career; she notes as well that her recent research on protein tyrosine phosphatases and the mechanism of tumor formation has potential short-term and long-term applications in the areas of cancer research and aging. The interview concludes with Sun’s reflections on gender issues in science; collaborations between industry and the academy; the impact of the Pew Scholars Program in the Biomedical Sciences on her work; and changes she would make to improve the quality of science in the United States.

UCLA INTERVIEW HISTORY

INTERVIEWER:

William Van Benschoten, Interviewer, UCLA Oral History Program. B.A., History, University of California, Riverside; M.A., History, University of California, Riverside; C. Phil., History, UCLA

TIME AND SETTING OF INTERVIEW:

Place: Sun's office, Yale University School of Medicine.

Dates, length of sessions: January 14, 2003 and January 15, 2003

Total number of recorded hours: 2.77

Persons present during interview: Sun and Van Benschoten.

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, Van Benschoten held a telephone preinterview conversation with Sun to obtain written background information (curriculum vitae, copies of published articles, etc.) and agree on an interviewing schedule. He also reviewed prior Pew scholars' interviews and the documentation in Sun's file at the Pew Scholars Program office in San Francisco, including Sun's proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members.

ORIGINAL EDITING:

Carol Squires 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.

Sun did not review the transcript. Consequently, some proper names and other information remain unverified.

Squires prepared the table of contents and index. Sun provided the curriculum vitae. Van Benschoten assembled the interview history. TechniType assembled the guide to proper names.

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