

CHEMICAL HERITAGE FOUNDATION

HAO WU

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Karen A. Frenkel

at

Weill Medical College of Cornell University
New York, New York

on

30 and 31 January 2008
(With Subsequent Corrections and Additions)



Hao Wu

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HAO WU

1964 Born in Beijing, China on 23 May

Education

1985 B.S. equivalent, Biology, Peking University and Peking Union Medical College
1988 M.D. candidate, Peking Union Medical College
1992 Ph.D., Biochemistry, Purdue University

Professional Experience

Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences, Beijing China
1987 Research Assistant

Columbia University, New York, New York
1992-1997 Aaron Diamond Postdoctoral Fellow, with Wayne A. Hendrickson

Weill Medical College of Cornell University
1997-2001 Assistant Professor, Department of Biochemistry
2001-2003 Associate Professor, Department of Biochemistry
2003-present Professor, Department of Biochemistry

Honors

1981 International Math Olympiad
1982-1988 Award for Outstanding Academic Achievement, Peking Union Medical College (First in GPA for the entire period)
1989 Member, Gamma Sigma Delta
1989-1992 Howard Hughes Medical Institute, Pre-doctoral Fellowship
1993-1996 Aaron Diamond Foundation, Postdoctoral Fellowship
2000 Junior Committee Award, Weill Medical College of Cornell University
2000-2004 Pew Scholar in the Biomedical Sciences
2002-2004 Rita Allen Scholar Award
2003 Margaret Oakley Dayhoff Award in Biophysics, The Biophysical Society
2003 [New York City] Mayor's Award for Excellence in Science and Technology

ABSTRACT

Hao Wu's oral history begins with a discussion of her childhood in China, during which her family was separated and forced to relocate to the countryside during the Cultural Revolution. Despite the difficulties associated with such turmoil, including the death of her father, Wu excelled in school. She consistently ranked highest in her class, and on the National College Entrance Exam she ranked fifth of all test-takers in the city of Beijing. Wu enrolled in Peking Union Medical College in Beijing, a highly selective, combined eight year bachelor's and medical degree program founded by the Rockefeller Foundation. While there she took courses taught in English and a semester of Immunology research which piqued her interest in laboratory work, leading her away from the clinical world of medicine. At an international biochemistry meeting, Wu discovered the structural biology research of Michael Rossmann, research that would ultimately bring her to the United States. After some difficulty obtaining her visa, Wu began the Ph.D. program at Purdue University joining Rossmann's laboratory. Her research on canine parvovirus crystals brought her to the University of Kentucky and also to Norwich, England briefly. Additionally Wu worked on a Fortran computational modeling program during her graduate studies. While at Purdue, Wu met a colleague she later married, though she quickly discovered that he did not share her views about science or appreciate the difficulty of balancing family life and research. Wu chose her postdoctoral position at Columbia University with Wayne A. Hendrickson because her partner's job was in Connecticut.

Wu's research on CD4 and HCG led to multiple publications including a 1997 *Nature* paper. Although Wu considered becoming a Research Assistant instead of a PI, after she solved the structure of CD4 she decided to test the job market and ultimately joined the faculty at Weill Medical College of Cornell University. Staying in New York City did not disrupt her children's education and allowed Wu to take advantage of the large structural biology community within the city. Shortly after beginning at Cornell, Wu received the Pew Scholars in the Biomedical Sciences Award. This fellowship helped her solve structures and perform the initial work necessary in order to receive a National Institutes of Health grant. During the oral history, Wu discussed her research group's work on TRAF and AIF and the difficulties associated with the funding of crystallographic research. She also touched on the current struggle between basic and translational science; competition from other laboratories; the complexities of balancing family and work; and the difficulties women in science face. At many points throughout the interview Wu returned the discussion to China and its ascendancy with respect to science, her own educational experiences there, and the teaching she now does in China.

INTERVIEWER

Karen A. Frenkel is a writer, documentary producer, and author specializing in science and technology and their impacts on society. She wrote *Robots: Machines in Man's Image* (Harmony 1985) with Isaac Asimov. Her articles have appeared in many magazines and newspapers including *The New York Times*, *CyberTimes*, *Business Week*, *Communications Magazine*, *Discover*, *Forbes*, *New Media*, *Personal Computing*, *Scientific American*, *Scientific American MIND*, *The Village Voice*, and *Technology Review*. Ms. Frenkel's award-winning documentary films, *Net Learning* and *Minerva's Machine: Women and Computing* aired on

Public Television. She has been an interviewer for Columbia University's Oral History Research Center's 9/11 Narrative and Memory project, The National Press Foundation's Oral History of Women in Journalism, and the International Psychoanalytic Institute for Training and Research's Oral History. Professional memberships include: The Authors Guild, National Association of Science Writers, Writer's Guild of America East, and New York Women in Film and Television: Past Member of the Board and Director of Programming. Her website is www.karenafrenkel.com.

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