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ZHAOHUI XU

The Pew Scholars Program in the Biomedical Sciences

Transcript of Interviews
Conducted by

David J. Caruso

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Ann Arbor, Michigan

on

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(With Subsequent Corrections and Additions)

Zhaohui Xu

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ZHAOHUI XU

1967 Born in Suzhou, China, on 18 January

Education

1989 B.S., University of Science and Technology of China, Biology
1992 Ph.D., University of Minnesota, Biochemistry

Professional Experience

Howard Hughes Medical Institute, Yale University
1993-1998 Post-Doctoral Research, Structural Biology

University of Michigan
1999-2005 Assistant Professor, Department of Biological Chemistry
2005-present Associate Professor, Department of Biological Chemistry

Honors

1985-1989 University Scholarships, University of Science and Technology of China
1991 Phi Kappa Phi, Member
1992 Bacaner Research Award, University of Minnesota
1999 Biological Sciences Scholar, University of Michigan Medical School
2001 Pew Scholars Program in Biomedical Sciences
2003 Basic Science Research Award (Dean's Award)

ABSTRACT

Zhaohui Xu was born in Suzhou, China, during the Cultural Revolution. His father was a supervisor of quality engineering in a textile factory, his mother a teacher of deaf children. Because the Revolution dictated a child's future occupation and education was not valued, there was no college; there was no academic pressure; there were few books, no movies, no television. Grade school had just two subjects, Chinese and mathematics. By fourth or fifth grade, however, things were changing again, and China was reverting to the placement-by-exam system of further education, beginning in about fifth grade. In junior high school Xu finally began science classes; he loved all of them, but especially chemistry. In high school he got a glimpse of an academic future; the top four percent of students taking the final high school exam were accepted into college; but one had to choose only one college before taking the exam, and if the college did not accept him, he had no other chances.

Although there had been neither societal nor parental academic pressure on him, Xu always strove to rank first in his class, so he scored very high on the high-school final exam. He had chosen the University of Science and Technology of China for its good reputation and broader science base. In a five-year college period, one could choose electives only from third year on, and even then they were subsets of one's major. In his third year Xu began work on glucose isomerase in Wanzhi Huang's lab. Xu loved the excitement of discovery to be found in basic science, but because Chinese research facilities were so limited and unsophisticated Xu knew he wanted to go to graduate school elsewhere.

Through CUSBEA (China-United States Biology and Biochemistry Examinations and Applications) Xu was accepted into the University of Minnesota. He began his rotations and discovered x-ray crystallization, so he entered Leonard Banaszak's lab, but also worked in the lab of David Bernlohr. During his last year Xu married his high-school sweetheart, and they had their first of two sons.

Xu finished his PhD in three years and was accepted into Paul Sigler's lab at Yale University. He worked for a while on rhodopsin, but that was not successful, and he switched to GroEL and GroES. After six years there he accepted an assistant professorship at the University of Michigan Department of Biological Chemistry; he has since advanced to associate professor. He spends perhaps two-thirds of his time on the bench, working in three areas: determining the crystal structure of the trigger factor; determining the crystal structure of the cytosolic chaperones GroEL and GroES; and studying SecA and SecB. He has begun a collaboration with a Chinese lab; he feels that the stiff competition for college places produces better students there, and labor is cheaper. He also teaches and sits on an award selection committee; and he attempts to balance all this with his family life.

INTERVIEWER

David J. Caruso earned a B.A. in the History of Science, Medicine, and Technology from the Johns Hopkins University in 2001 and a Ph.D. in Science and Technology Studies from Cornell University in 2008. His graduate work focused on the interaction of American military and medical personnel from the Spanish-American War through World War I and the institutional transformations that resulted in the development of American military

medicine as a unique form of knowledge and practice. David is currently the Program Manager for Oral History at the CHF. His current research interest focuses on the discipline formation of biomedical science in 20th- and 21st century America and the organizational structures that have contributed to such formation.

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