CHEMICAL HERITAGE FOUNDATION

SONG TAN

The Pew Scholars Program in the Biomedical Sciences

Transcript of Interviews
Conducted by

David J. Caruso

at

Penn State University
University Park, Pennsylvania

on

19 and 20 November 2008

(With Subsequent Corrections and Additions)

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SONG TAN

1963 Born in London, England on 5 June

Education

1985 B.A., Physics, Cornell University
1989 Ph.D., Molecular Biology, Laboratory of Molecular Biology, University of Cambridge

Professional Experience

Eidgenössische Technische Hochschule (ETH)-Zurich, Switzerland
1989-1992 Postdoctorate, under Timothy J. Richmond
1992-1998 *Oberassistent* (Project Leader), under Timothy J. Richmond

Penn State University, University Park, Pennsylvania
1998-2004 Assistant Professor, Department of Biochemistry and Molecular Biology
2004-present Associate Professor, Department of Biochemistry and Molecular Biology

Honors

1981 Westinghouse Science Talent Search, fourth place
1985 Cornell University Presidential Scholar
1985 Phi Beta Kappa
1985 Churchill Scholarship (declined)
1985-1989 U.S. National Science Foundation Fellowship
1985-1987 Marshall Scholarship
2001-2005 Pew Scholar in the Biomedical Sciences
2002 Pennsylvania State Biochemistry and Molecular Biology Tershak Outstanding Faculty Teaching Award

ABSTRACT

Song Tan was born in London, England; he has one brother and one half brother. His father was from Singapore, his mother from China. When Tan was five the family moved to Singapore, where they lived for ten years before settling in Miami, Florida. Tan's father was a civil engineer; his mother was in banking and in wholesale distribution; she went back to banking when they moved to the United States.

Tan remembers always being interested in science, especially the chemical elements. He loved to read, finding the Childcraft *How and Why Library* particularly fascinating. In Singapore Tan attended the Anglo-Chinese School. He was in an honors program in his high school in Florida that allowed students to work in university labs around Miami; Tan went to the University of Miami. He worked in Richard Doepker's lab, where he analyzed the products of burning plastic (pyrolysis of polystyrene). Tan took fourth place in the Westinghouse Talent Search; he used his scholarship at Cornell University, which had the added attraction of a synchrotron. Still interested in particle physics, he became increasingly intrigued by genetic engineering. He majored in physics, but with a concentration in biochemistry. He worked in Aaron Lewis's lab, where he purified bacteriorhodopsin and studied photoreceptors. He also worked at the synchrotron with David Cassel.

Tan was awarded both the Churchill and the Marshall Scholarships; he declined the Churchill and accepted the Marshall, matriculating into the University of Cambridge, which initially assigned him to Trevor Lamb's lab at the University of Cambridge. Lamb recommended him to Timothy Richmond at the Laboratory of Molecular Biology, where he worked on protein-DNA interactions of yeast mating-type transcription factors. Tan moved with Richmond to Zurich, Switzerland, to the Eidgenössische Technische Hochschule (ETH). There he finished his PhD and continued his work, first as a postdoc and then as *Oberassistent*, or project leader. Throughout and after his graduate career Tan had the opportunity to meet many famous scientists at LMB and ETH, including Paul Sigler at a synchrotron in Hamburg, Germany. At that meeting, the Richmond and Sigler groups realized they were both working to determine the crystal structure of TFIIA and TBP transcription factors with DNA; the two groups ended up publishing in the same week. Upon finishing his work with Richmond, Tan accepted an assistant professorship at Penn State University.

At the end of the interview, Tan discusses the approaches he brought with him from Richmond's lab; he talks about his enjoyment of teaching and his teaching methods; he compares students at Penn State with those at other schools; and he discusses politics and language. Tan also describes the process of obtaining the Pew Scholars Program in the Biomedical Sciences award and the annual meetings. The interview concludes with his thoughts on funding in general and his funding in particular; and with thanks to his parents for providing him with such fine opportunities.

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-century America and the organizational structures that have contributed to such formation.

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