

CHEMICAL HERITAGE FOUNDATION

DORIT HANEIN

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Nicole C. Nelson

at

Sanford-Burnham Medical Research Institute
La Jolla, California

on

3 December 2008

(With Subsequent Corrections and Additions)

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DORIT HANEIN

1961 Born in Tel-Aviv, Israel, on 3 January

Education

1987 B.S.c., Chemistry, Shenkar Institute of Textile Technology, Israel
1989 M.Sc., Chemistry, Weizmann Institute of Science, Israel
1995 Ph.D., Chemistry, Weizmann Institute of Science, Israel

Professional Experience

1994-1995 Boston University Medical School
Postdoctoral Fellow, Structural Biology

1995-1999 Brandeis University
Postdoctoral Fellow, Structural Biology

1999-2005 Sanford-Burnham Medical Research Institute
Assistant Professor
2005-present Associate Professor

2005-present University of California, San Diego
Adjunct Professor

Honors

1994 Elchanan E. Bondi Memorial Prize for PhD students
1994-1995 Rothschild Post-Doctoral Fellowship
1994 Fulbright Junior Researcher Award
1996 Gerhard M.J. Schmidt Memorial Prize for PhD Thesis
2000-2003 Pew Scholar in the Biomedical Sciences
2002 Burnham Faculty Award

ABSTRACT

Dorit Hanein was born in Tel Aviv, Israel, but grew up in Fortaleza, Ceará, Brazil, where her family was engaged in an Israeli-Dutch program to foster soybean cultivation. She and her sister attended all-girl, Roman Catholic schools that accommodated their Jewish upbringing. In the middle of high school, Hanein's mother decided to return to Israel so that the girls would absorb Jewish culture. There, Hanein had to learn Hebrew and also discovered a passion for chemistry. After high school, she enlisted in mandatory service in the Israeli Army. Hanein had difficulties accommodating to army life, as she could not eat army food, which then did not have diets for strict vegetarians. She was unable to participate in guard duty due to an inability to pass basic weapons training, so she was placed in a computer programming track.

After the Army, Hanein worked for three years at a car rental agency, which eventually became an unfulfilling job. At that time, she accepted her mother's repeated suggestion to enroll in undergraduate studies. She joined the Shenkar Institute of Textile Technology; there she worked with Dr. Shalev on developing a fire-retardant textile. During the summer break of her third year, she enrolled in a program at the Weizmann Institute of Science, which left a lasting impression on Hanein. After receiving her degree, she spent a year in the chemical industry, which she found male-dominated and stodgy. Hanein then followed Shalev's suggestion that she pursue a graduate degree at the Weizmann. She was accepted and worked on biomineralization and on the specificity of crystal-cell interactions. Required to take biology classes for a chemistry PhD, Benjamin Geiger joined Lia Addadi as her advisor. While publishing four papers during her graduate career, she also gave birth to twin girls.

Wanting to expand her knowledge Hanein toured four labs that could provide the training and know-how that cryo-electron microscopy demands. She decided to spend her first postdoctoral year in Boston with Tom Rapoport (Harvard Medical School) and Chris Akey (Boston University); Hanein had both Fulbright and Rothschild Fellowships at this time. At the end of this year, she joined David DeRosier, one of the founders of three-dimensional, high resolution electron microscopy image analysis, for creating three-dimensional structures from electron microscope images of actin complexes. During that time she learned and practiced biochemistry with Paul Matsudaira at the Whitehead Institute for Biomedical Research. Near the end of her postdoctoral work, Hanein began to search for jobs; among others, Northwestern University and the Sanford-Burnham Medical Research Institute provided offers. Her decision was made easier when her daughters wanted a house in California because it had a swimming pool. Having a commitment for supporting basic research and a dedicated electron microscope unit clinched the deal.

During the interview Hanein talks about the influence of the Pew Scholars Program in the Biomedical Sciences grant; her continuing work with Arp 2/3 complex; collaborations with Rong Li and Thomas Pollard; and her own mentoring style. She describes her view of her own personality and explains that she is becoming more diplomatic, though not less forceful. She talks about fun and scholarly profit at the Pew annual meetings, where she has won a prize for the best hairdo. She discusses the hardships in seeking funds for basic research in the current atmosphere which promotes the applicability (translation) of research. Hanein concludes her interview with a discussion of the difficulties for women in the biophysical sciences.

INTERVIEWER

Nicole C. Nelson graduated with a B.Sc. in Genetics and Social and Political Thought from the University of Western Ontario in 2004. She is currently a Ph.D. candidate in the Science and Technology studies program at Cornell University. Nicole is interested in the sociology of contemporary biomedicine, especially genetics and model organisms. Her dissertation project is an ethnographic study of the social processes involved in developing animal models (especially mouse models) for studying the genetics of complex human behaviors. In addition to her dissertation research, Nicole works as a research assistant conducting interviews for several projects, including the CHF's oral history project for Pew Scholars in the Biomedical Sciences.

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