CHEMICAL HERITAGE FOUNDATION

MICHAEL J. BERRY II

The Pew Scholars Program in the Biomedical Sciences

Transcript of Interviews
Conducted by

Karen A. Frenkel

at

Princeton University
Princeton, New Jersey

on

4 and 5 December 2007

(With Subsequent Corrections and Additions)

Michael J. Berry II

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 the Pew Scholars Program in the Biomedical Sciences Advisory Committee members.

This oral history is made possible through the generosity of

CHEMICAL HERITAGE FOUNDATION
Oral History Program
FINAL RELEASE FORM

This document contains my understanding and agreement with the Chemical Heritage Foundation with respect to my participation in the audio-recorded interview conducted by Karen A. Frenkel on 4-6 December 2007. I have read the transcript supplied by Chemical Heritage Foundation.

1. The audio recording, corrected transcript, photographs, and memorabilia (collectively called the "Work") will be maintained by the Chemical Heritage Foundation and made available in accordance with general policies for research and other scholarly purposes.

2. I hereby grant, assign, and transfer to the Chemical Heritage Foundation all right, title, and interest in the Work, including the literary rights and the copyright, except that I shall retain the right to copy, use, and publish the Work in part or in full until my death.

3. The manuscript may be read and the audio recording(s) heard by scholars approved by the Chemical Heritage Foundation subject to the restrictions listed below. The scholar pledges not to quote from, cite, or reproduce by any means this material except with the written permission of the Chemical Heritage Foundation.

4. I wish to place the conditions that I have checked below upon the use of this interview. I understand that the Chemical Heritage Foundation will enforce my wishes until the time of my death, when any restrictions will be removed.

Please check one:

a. X **No restrictions for access.**
NOTE: Users citing this interview for purposes of publication are obliged under the terms of the Chemical Heritage Foundation Oral History Program to obtain permission from Chemical Heritage Foundation, Philadelphia, Pennsylvania.

b. _____ **Semi-restricted access.** (May view the Work. My permission required to quote, cite, or reproduce.)

c. _____ **Restricted access.** (My permission required to view the Work, quote, cite, or reproduce.)

This constitutes my entire and complete understanding.

(Signature) Michael J. Berry II
Michael J. Berry

(Date) Sept 10, 2008

Revised 10/11/05

Chemical Heritage Foundation
Oral History Program
315 Chestnut Street
Philadelphia, Pennsylvania 19106

Michael J. Berry II

Education

1989	B.S., Physics, Minor in Philosophy, University of California at Berkeley
1991	A.M., Physics, Harvard University
1994	Ph.D., Physics, Harvard University
1994	Neural Systems and Behavior, Marine Biological Laboratory, Woods Hole

Professional Experience

	Exxon Production Research
1987, 1988	Research Assistant
	Harvard University
1989-1994	Doctoral Researcher
1994-1999	Post-Doctoral Researcher, Laboratory of Markus Meister
	Princeton University
1999-2005	Assistant Professor, Department of Molecular Biology
2005 - present	Associate Professor, Department of Molecular Biology

Honors

.

1989	Phi Beta Kappa, UC Berkeley
1989-1992	National Science Foundation Graduate Fellow
1996-1999	National Eye Institute Postdoctoral Grant
2000-2001	Fellow-at-Large, Sante Fe Institute
2000-2003	Research Grant from the E. Matilda Ziegler Foundation for the Blind
2000-2004	Pew Scholar in the Biomedical Sciences
2001-2003	Old Dominion Faculty Fellow, Princeton University, Humanities Council

ABSTRACT

Michael J. Berry II begins his oral history discussing his childhood, which was heavily influenced by the chemistry careers of both his parents and involved several moves from California to Wisconsin, New Jersey, and then Texas. During high school Berry developed an interest in both physics and chemistry, while also engaging in some philosophical questions. Shortly after matriculating at the University of California, Berkeley, Berry decided to pursue physics as his major instead of chemistry. The questions at the heart of physics seemed both more intellectually stimulating and intriguing. Although Berry felt he had a calling within the field of physics, he still found time to wrestle with philosophical inquiry. As an undergraduate Berry began to think about neuroscience as the melding of his two interests: physics and philosophy. After earning his bachelors degree, however, Berry pursued a Ph.D. in physics at Harvard University under Robert M. Westervelt. While finishing his thesis work on semiconductor physics and chaotic systems, Berry decided to pursue post-doctoral research that led him farther from physics and closer to biology. Prior to beginning his post-doctoral work, Berry enrolled in a Marine Biological Laboratory course at Woods Hole focused on electrophysiology and found a community of physicists working in neuroscience and the biological fields. As such, the time spent with Markus Meister at Harvard University for post-doctoral research allowed Berry to transition successfully into the field of neuroscience (which he found better suited to his intellectual needs). By focusing his research on visual processing in the retina, Berry discovered the joys and challenges of working in a field that, unlike physics, did not yet have what he considered a well-defined framework. Before securing his faculty position at Princeton University in the Molecular Biology Department, Berry encountered some difficulty in choosing between physics-based and biology-based departments. Shortly after starting at Princeton, Berry was awarded the Pew Scholars in the Biomedical Sciences award. Throughout his oral history, Berry addressed such important issues as funding, mentoring his students, and attempting to balance his personal life with his career. The oral history concludes with a discussion of the connections between neuroscience and philosophy and the globalization of science.

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

TABLE OF CONTENTS

INDEX