CHEMICAL HERITAGE FOUNDATION

AMY H. NEWMAN

Transcript of Interviews
Conducted by

Hilary Domush

at

National Institutes of Health
Baltimore, Maryland

on

25 and 26 August 2009

(With Subsequent Corrections and Additions)

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

AMY H. NEWMAN

1958	Born in Buffalo, New York on 22 August

Education

1980	B.S., Chemistry. Mary Washington College
1985	Ph.D., Medical Chemistry, Medical College of Virginia, Virginia Commonwealth University

Professional Experience

	National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health
1985-1988	Postdoctorate, Medicinal/Organic Chemistry, under Kenner C. Rice
	Walter Reed Army Institute of Research
1988-1990	Research Chemist, Applied Biochemistry
	National Institute on Drug Abuse Intramural Research Program, National Institutes of Health
1990-1994	Senior Staff Fellow, Psychobiology Section
1994-1999	Investigator, tenure-track, Psychobiology Section
1999-present	Senior Investigator and Chief, Medicinal Chemistry Section
2008-2009	Associate Director for Translational Research
2009-present	Acting Deputy Scientific Director

Honors

1980-1981	A.D. Williams Teaching Fellowship, School of Pharmacy, Medical College of Virginia, Virginia Commonwealth University
1982-1983	Rho Chi Pharmaceutical Sciences Honor Society Graduate Teaching Assistant of the Year Award
1984	Rho Chi Pharmaceutical Sciences Honor Society
1984	Watts Day Research Original Proposal Award
1985-1987	National Research Service Award, National Institute on Drug Abuse
1986	Committee on Problems of Drug Dependence Travel Award Scholarship
1994	Division of Intramural Research Scientific Director's Award, National Institute on Drug Abuse

1996	National Institutes of Health Director's Seminar Series Invited Lecturer
1998	Guest Editor of *Medicinal Chemistry Research*, Special Issue, v.8 (1 & 2)
1998	HHS Special Service Award
1998	Sato International Memorial Award, Pharmaceutical Society of Japan
2004	National Institute on Drug Abuse Director's Award of Merit
2006	National Institute on Drug Abuse Director's Award for EEO, Diversity and Quality of Worklife
2009	Featured in *National Institutes of Health: Women in Science* by the National Institutes of Health Office of Research on Women's Health
2009	First recipient of the National Institute on Drug Abuse/National Institutes of Health Women Scientists Advisory Achievement Award

ABSTRACT

Amy Hauck Newman was raised in Buffalo, New York, one of two sisters. Her mother was an elementary school teacher; her father, a mechanical engineer. She enjoyed school from a young age and was interested in literature, poetry, and the sciences. She wanted to become a pediatrician, although her high school discouraged her from pursuing science. As an undergraduate at Mary Washington College, she majored in chemistry and undertook pre-medical coursework. Most of her peers were women and she found the college to be a very supportive environment; she decided to go to graduate school for medicinal chemistry. Graduate school was challenging, but her program was fairly streamlined, and she finished her degree in four years.

Newman did her postdoctorate with Kenner C. Rice at NIH, where she focused on opiate synthesis and benzodiazopene receptors. Rice was a encouraging mentor, teaching her to write scientifically and to pursue collaborations. Since NIH had few opportunities for permanent positions, she then took a position at Walter Reed Army Institute of Research. At Rice's suggestion, she began researching sigma receptor ligands; she continued to seek collaborators, including Jeffrey M. Witkin at NIH, which eventually led to the opportunity to begin a medicinal chemistry program back at NIH. At NIH she found a work environment supportive of her growing family and she began conducting research on analogues of benztropine—a dopamine transporter ligand like cocaine that does not have cocaine-like effects on the body.

Newman's role as an NIH scientist is to develop the basic science of compounds in the hopes that pharmaceutical companies will continue to develop them into medications. Her lab also conducts research synthesizing amide analogues with an affinity for glutamate receptors, which also play a role in drug abuse. She has intentionally kept her lab small, though has maintained a vigorous research program; she has also taken on additional administrative responsibilities like committees. At the end of the interview Newman discusses balancing her family and career; she comments on science education in the United States; and she shares her frustrations with how the communication of science to the public leads to unrealistic expectations for drug development and with the process of drug development itself. Newman notes how public perceptions of addiction have changed, and hopes that will translate into more attention from pharmaceutical companies. She concludes her interview by reflecting on the types of mentors she has had, and her efforts to be a strong mentor.

INTERVIEWER

Hilary Domush earned a B.S. in chemistry from Bates College in Lewiston, Maine in 2003. Since then she has completed a M.S. in chemistry and a M.A. in history of science both from the University of Wisconsin. Her graduate work in the history of science focused on early nineteenth-century chemistry in the city of Edinburgh, while her work in the chemistry was in a total synthesis laboratory. Hilary is currently Program Associate for Oral History at CHF, where she combines these two divergent academic paths. Her current work focuses on the Pew Biomedical Scholars and Women in Chemistry oral history projects. She also contributes to the podcast *Distillations* and the magazine *Chemical Heritage*.

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