CHEMICAL HERITAGE FOUNDATION

ALFRED T. MALOUF

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview
Conducted by

Andrea R. Maestrejuan

at

Case Western Reserve University
Cleveland, Ohio

on

8 and 9 September 1997

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REFORMATTING:

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Interviewee agrees to participate in a series of University-conducted tape-recorded interviews, commencing on or about September 8, 1997, and tentatively entitled "Interview with Alfred T. Malouf" This Agreement relates to any and all materials originating from the interviews, namely the tape recordings of the interviews and a written manuscript prepared from the tapes, hereinafter collectively called "the Work."

In consideration of the mutual covenants, conditions, and terms set forth below, the parties hereto hereby agree as follows:

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5. To insure against substantive error or misquotation, Interviewee will have the right to review the manuscript before it is put into final form. University therefore will send Interviewee a copy of the edited transcript for review and comment. Interviewee will return transcript and comments to University within 30 days of receipt of the transcript. In the event that Interviewee does not respond within 30 days, University will assume that Interviewee has given full approval of the transcript.

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Attention: Ms. Carli V. Rogers
Copyright Officer

If to Interviewee:

Alfred T. Malouf
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Cleveland, Ohio 44106-6003

University and Interviewee have executed this Agreement on the date first written above.

INTERVIEWEE	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
X _____ (Signature)	_____ (Signature)
Alfred T. Malouf (Typed Name)	for Carli V. Rogers (Typed Name)
Department of Pediatrics	Copyright Officer (Title)
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Cleveland, OH 44106-6003	
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Pew Scholars in the Biomedical Sciences

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Alfred T. Malouf, Ph.D.

1/22/08
Date

Chemical Heritage Foundation
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ALFRED T. MALOUF

1953 Born in San Diego, California, in May

Education

1975 B.A., University of California, San Diego
1983 Ph.D., Johns Hopkins University

Professional Experience

Scripps Clinic and Research Foundation, Division of Preclinical Neuroscience and Endocrinology, La Jolla, California
1983-1986 Research Fellow

University of Washington, Seattle, Washington
1986-1988 Senior Research Fellow, Department of Neurological Surgery
1988-1989 Postdoctoral Research Associate
1989-1990 Research Assistant Professor, Department of Neurological Surgery
1990-1995 Assistant Professor
1995 Associate Professor

Case Western Reserve University, Cleveland, Ohio
1995-present Associate Professor, Department of Pediatrics

Honors

1984-1986 National Institute on Alcohol Abuse and Alcoholism Postdoctoral Training Grant
1989 American Epilepsy Society Young Investigator Travel Awardee
1991-1995 Pew Scholars Program in the Biomedical Sciences Grant

Selected Publications

Kuhar, M.J. et al., 1978. Dopamine receptor binding *in vivo:* The feasibility of autoradiographic studies. *Life Science* 22:203-210.

Malouf, A.T. et al., 1984. Characterization of glutamic acid neurotransmitter binding sites on neuroblastoma hybrid cells. *Journal of Biological Chemistry* 259:12756-62.

Malouf, A.T. et al., 1984. Agonists and cations regulate the glutamic acid receptors on intact neuroblastoma hybrid cells. *Journal of Biological Chemistry* 259:12763-68.

Newell, D.W. et al., 1993. Colchicine is selectively neurotoxic to dentate granule cells in organotypic cultures of rat hippocampus. *Neurotoxicology* 14:375-80.

Hsu, S.S-F. et al., 1994. Adenosinergic modulation of CA1 neuronal tolerance to gluscose deprivation in organotypic cultures. Neuroscience Letters 178:189-92.

Newell, D.W. et al., 1995. Glycine site NMDA receptor antagonists provide protection against ischemia-induced neuronal damage in hippocampal slice cultures. *Brain Research* 680:80-87.

Newell, D.W. et al., 1995. Glutamate and non-glutamate receoptor mediated toxicity caused by oxygen and glucose deprivation in organotypic hippocampal cultures. *Journal of Neuroscience* 15:7702-11.

Braun, K. et al., 1996. Slice cultures of the imprinting-relevant forebrain area medio-rostral neostriatum hyperstriatum ventrale of the domestic chick: Immunocytochemical characterization of neurons containing Ca2+-binding proteins. *Journal of Chemical Neuroanatomy* 10:41-51.

Nguyen, L.B. et al., 1996. Reinnvervation of stratum lucidum by hippocampal mossy fibers is developmentally regulated. *Developmental Brain Research* 95:184-93.

Newell, D.W. et al., 1997. Gylcine causes increased excitability and neurotoxicity by activation of NMDA receptors in the hippocampus. *Experimental Neurology* 145:1-10.

ABSTRACT

Alfred T. Malouf was born into and grew up in an extended Lebanese family. His father originally owned a garage, but he switched to a restaurant. Both parents and grandparents were wonderful cooks, and Alfred loves to cook also. Unfortunately, Alfred's father's heart was bad, so he had to retire from the restaurant. Alfred and his brother had begun working there when they were very young, and during high school and college they were able to manage the restaurant for their father. Alfred's upbringing was strict Roman Catholic, and his grandfather had a large influence on their family; having gone only through fourth grade he placed a high value on education and took the grandchildren to dinner at Anthony's Fish House if one got A's in school. Alfred cannot remember when he was not curious about how things worked, and he loved to take things apart, particularly clocks. He also loved the water, especially scuba diving. He had good high-school science and mathematics teachers, but he did not think especially about college. His parents and grandfather thought science was the only legitimate discipline.

He entered the University of California, San Diego, as a biology major. He was fascinated by how the brain works, and he took literature and philosophy classes as part of his desire to understand. During Alfred's first year his grandfather died, a very large blow that helped Alfred focus anew on science. He took a class in pharmacology with Morton Printz, a class he found "phenomenal," and spent two years in Printz's lab.

He considered getting a PhD in winemaking, but decided to study neuroscience instead, calculating that he could make wine later in his life. (He intends to do so when he retires.) When he investigated graduate schools he found the atmosphere at Johns Hopkins University special, so he entered Joseph Coyle's lab to work on kainic acid. Next he collaborated with Ronald L. Schnaar to learn tissue culture techniques; this was lucky as it turns out that Alfred is allergic to rodents. Coyle's medical training added a valuable "bench to bed" dimension to Alfred's research.

Still fascinated by how things work – in this case living cells – he accepted a postdoc in Floyd Bloom's lab at Scripps Research Institute, where he learned physiology and electrophysiology. From there he accepted a research fellowship in Philip Schwartzkroin's lab at the University of Washington, studying the physiology of the hippocampus. There he met a pharmacology student, Stephanie Orellana, whom he eventually married and with whom he has two daughters. Stephanie worked for Ellis Avner, a pediatric nephrologist, until he left for Case Western Reserve University; Avner has since recruited both Maloufs to tenure-track associate professorships. Alfred has his lab set up now, and work is now going quite well. His proposal for the Pew Scholars in the Biomedical Sciences award included his study of GABAergic neurons and epileptiform activity and the effect of zinc on the GABA system. He has taken up optical imaging of CA3 pyramidal cells and has become interested in Alzheimer's disease.

Alfred finds basic science exciting, but he also loves to see clinical relevance; he tries to balance intellectual pursuit with societal goals. He also has to balance lab management with teaching; and the work of two scientists with a family that includes two young daughters.

UCLA INTERVIEW HISTORY

INTERVIEWER:

Andrea R. Maestrejuan, Interviewer, UCLA Oral History Program; B.A., History, University of California, Irvine, 1988; B.S., Biological Sciences, University of California, Irvine, 1988; C.Phil., History, University of California, Riverside

TIME AND SETTING OF INTERVIEW:

Place: Malouf's office, Case Western Reserve University.

Dates, length of sessions: September 8, 1997 (180 minutes); September 9, 1997 (200).

Total number of recorded hours: 6.35

Persons present during interview: Malouf and Maestrejuan.

CONDUCT OF INTERVIEW:

This interview is one in a series with Pew Scholars in the Biomedical Sciences conducted by the UCLA Oral History Program in conjunction with the Pew Charitable Trusts's Pew Scholars in the Biomedical Sciences Oral History and Archives project. The project has been designed to document the backgrounds, education, and research of biomedical scientists awarded four-year Pew scholarships since 1988.

To provide an overall framework for project interviews, the director of the UCLA Oral History Program and three UCLA faculty project consultants developed a topic outline. In preparing for this interview, Maestrejuan held a telephone preinterview conversation with Malouf to obtain written background information (curriculum vitae, copies of published articles, etc.) and to agree on an interviewing schedule. She also reviewed prior Pew scholars' interviews and the documentation in Malouf's file at the Pew Scholars Program office in San Francisco, including his proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members.

For general background on the recent history of the biological sciences, Maestrejuan consulted J.D. Watson et al., *Molecular Biology of the Gene.* 4th ed. Menlo Park, CA: Benjamin/Cummings, 1987, and Bruce Alberts et al., *Molecular Biology of the Cell.* 3rd ed., New York: Garland.

The interview is organized chronologically, beginning with Malouf's childhood in San Diego, California, and continuing through his graduate work at Johns Hopkins University, his postdoc at Scripps Research Institute, and the establishment of his own lab at Case Western Reserve University. Major topics discussed include his study of GABAengic neurons, his discovery of the effect of zinc on the GABA system, his interest in Alzheimer's disease, and the optical imaging of CA3 pyramidal cells.

ORIGINAL EDITING:

Gregory M.D. Beyrer, editorial assistant, edited the interview. He checked the verbatim transcript of the interview against the original tape recordings, edited for punctuation,

paragraphing, and spelling, and verified proper names. Words and phrases inserted by the editor have been bracketed.

Malouf reviewed the transcript. He verified proper names and made minor corrections and additions.

William Van Benschoten, editor, prepared the table of contents, biographical summary, and interview history.

Ödül Bozkurt, editorial assistant, compiled the index.

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